AWARDED 5 GOLD, SILVER & BRONZE MEDALS, IN ADDITION TO 3 CERTIFICATES OF MERIT

SINCE 1892.

1898.



CATALOGUE OF

SLOP WATER CLOSETS AND FRESH WATER CLOSETS,

GREASE COLLECTORS,

&C.,&C.

J. DUCKETT & SON LTP.

BURNLEY, LANCASHIRE.

Manufacturers of Sanitary Ware.

J. BROADLEY, LITHO.,

Gutenberg Works,
ACCRINGTON



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Sanitary Ware Works,

Burnley,

22nd August, 1900.



Dear Sir,

We beg to inform you that owing to the still further increase in the cost of Fuel, etc., we are obliged to again advance our prices for Sanitary Specialities. This will take effect on September 1st, and will be Jen per cent., making a total of

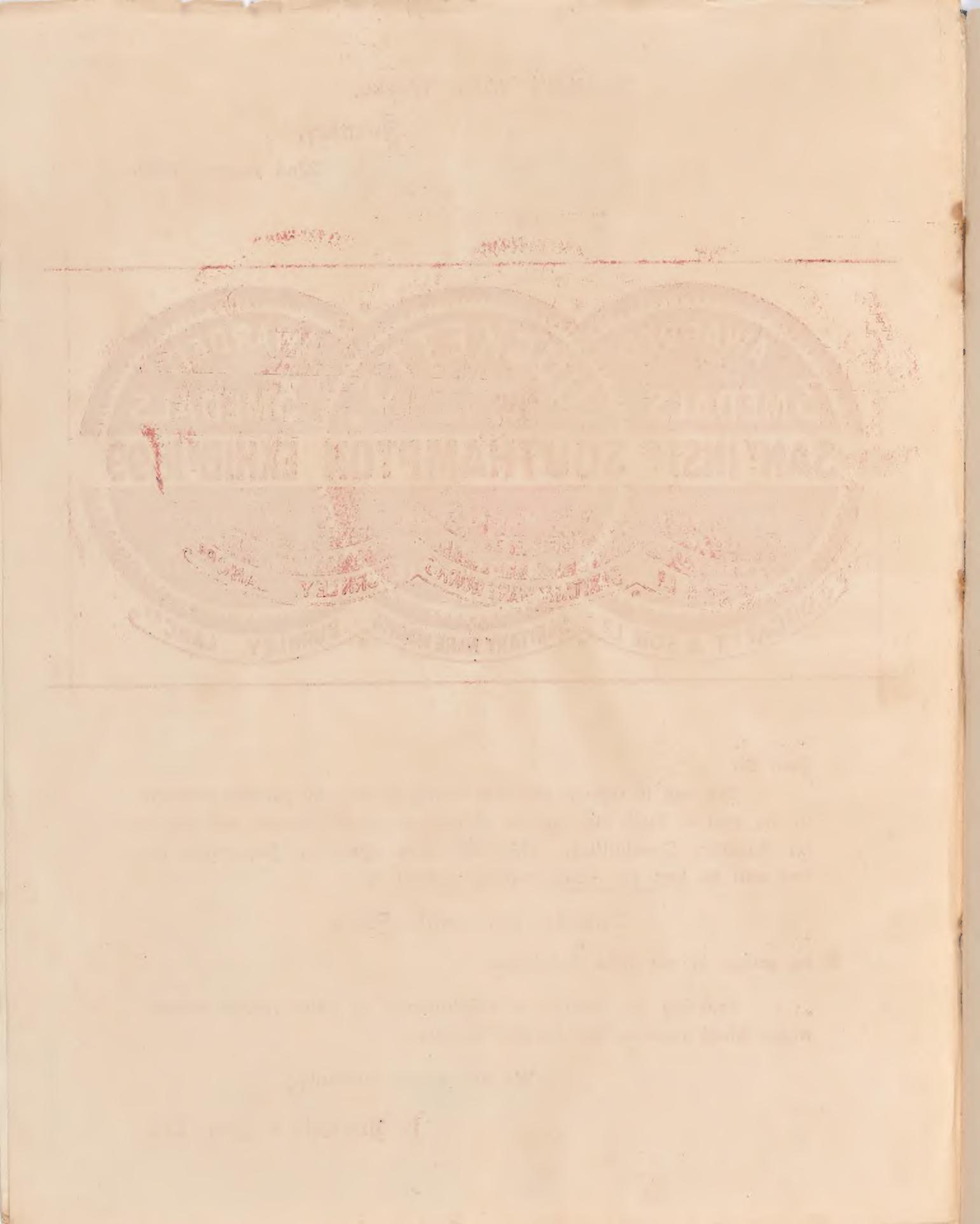
Iwenty per cent. Extra

on prices in our 1898 Catalogue.

Trusting to receive a continuance of your valued orders, which shall receive our careful attention.

We are, yours faithfully,

J. Duckett & Son, Ltd.



INTRODUCTION.

N presenting this New Catalogue of our Sanitary Specialities, we wish to invite the attention of Sanitary Engineers, Architects, Property Owners, Builders, and others, to the many improvements which we have brought out since we issued our 1895 Catalogue, comprising improved forms of Slop-water Closets, Urinals, Street Gulleys, Grease Traps, Disconnecting Traps, etc.

Our Improved Closets, Flushed Automatically by Slop=water, are becoming more popular as their merits become known. It is now admitted by those who have given them a fair trial that they are more suitable for out-door purposes than fresh=water flushed closets, and the result of their adoption shews a saving of town's water. We can strongly recommend their use on sanitary as well as on economical grounds.

A perusal of the short article on "Automatic Slop-water Closets" is suggested, and a reference to the extracts from Dr. Parsons' Report to the Local Government Board will be found of interest and value.

Our Sanitary Specialities are used by Her Majesty's Government, many Corporations, Sanitary Authorities and Railway Companies, etc., and no expense is spared on our part to supply efficient articles of the best material and workmanship.

J. DUCKETT & SON, LTD.,

SANITARY WARE WORKS,

March, 1898.

BURNLEY.

Automatic Slop-Water Closets.

The following remarks have been prepared by F. S. BUTTON, M. Inst. C.E., for 7½ years Borough Surveyor of Burnley, now General Manager to J. Duckett & Son, Limited.

Sanitary Science has made great progress during the past few years, and more particularly with respect to the removal and disposal of House Refuse and Excrementatious Matter.

The Public Health of cities, towns, and villages is very deservedly receiving the earnest attention of Sanitary Authorities, and one of the most important questions before public bodies at the present time is "In what manner shall we dispose of our domestic refuse and excrement?"

With respect to the more important part of the above question, namely, the disposal of fæcal matter, it will readily be admitted that the system known as Water Carriage is the best, inasmuch as it is both economical and sanitary. The pail or tub system is now almost universally condemned, as it is, in addition to being a costly system, an insanitary one. Sir Robert Rawlinson, K.C.B., has described it as a "filthy, stinking abomination." It has been argued by some that the pail system has done good service, and that the death-rates of the towns wherein the system is in use bear very favourable comparison with the death-rates of those town where the water carriage system is adopted; the answer to this is, that although the pail system has done good service in the past, it is now behind the times, and if the towns where it is in use would abandon it and adopt the Water Carriage system the comparisons between the death-rates would be still more favourable. The Water Carriage System is without doubt the most satisfactory method for the removal of fæcal matter from dwellings.

The drainage of towns is now receiving great attention by public authorities, and within a few years every town, it is to be hoped, will be placed in an excellent position with respect to its sewerage system and method of disposal of sewage. The system, from a sanitary and economical point of view, will be incomplete until the water carriage of excreta is fully adopted and at work.

Looking at the question from a financial standpoint it must be obvious that the saving in the collection alone of fæcal matter is a great item. Take the case of Burnley which has a population of over 100,000 and 22,000 dwellings, the water carriage system is extensively adopted, and in a short period the whole of the Borough will probably be on this system. In 1888 the number of water closets in the Borough was 6586, and the number of pails, cesspools, &c., was 9009. At the present time (March, 1898) the numbers are

19,540 water closets (of which 13,615 are slop-water closets) and 1,478 pails, cesspools, &c. The Corporation employ men for the purpose of inspecting the water closets in the Borough, and the cost of so doing is less than £130 per annum, or about 1½d. per closet per annum. On the other hand, if these were all on the pail system the cost of collection would not be less than 5s. per closet or £4,885 per annum. The immense saving in money alone is strong evidence in support of the water carriage system, but the improved death-rate has without doubt been brought about to some extent by the adoption of the water carriage system and the abolition of the pail system; from 1888 to 1895 the decrease in the annual death-rate has been 2 per thousand of the population, or in other words the lives of 200 persons are saved per year in Burnley alone, owing to improved sanitary conditions.

The removal at frequent and short intervals from the proximity of the dwelling of what might by its retention result in the generation of disease-spreading germs, is the strongest argument which can be used in support of the water carriage system.

The disposal of sewage from a water-closetted town is not more difficult than that from a non-water-closetted town, and it might be taken that the disposal of sewage sludge from the outfall works is assisted, owing to the superior manurial value of the sludge from the sewage of a water-closetted town. At Burnley, for example, 30,000 tons of wet sewage sludge are removed from the precipitation tanks in a year and are reduced by means of filter presses to 6,000 tons of semi-dry manure. This quantity is readily disposed of to farmers at 10d. per ton, and at times the demand is greater than the supply. A well known pail-closetted town produces a large quantity of sewage sludge at its sewage works per annum, but instead of a ready sale steps are being taken to get rid of it by means of refuse destructors, which must add to the cost considerably. In addition to this the great cost of collecting the contents of about 15,000 pails must be taken into account, which is about £7,000 a year. Sufficient has perhaps been said of the advantages of the water closet over the pail closet, it will now be advisable to refer to the various methods of water carriage in operation, and to their respective merits and advantages.

Generally speaking, they may be classified under two heads, viz.:—Clean Water flushed, and Slop Water flushed. The former has an advantage over the latter, viz.:—that it is suitable for indoor purposes, and the slop water closet is not, but the waste or slop water closet has many advantages over the clean water closet, viz.:—Ist.—That in the severest winter it is not liable to get out of order by freezing up. 2nd—That there is a great saving of town's water, inasmuch as there may be a saving of at least 3 gallons of water per head per day, or probably 15 per cent. of water consumed, which to public bodies is of great importance. 3rd.—That where the slop-water from a dwelling is collected and passed through the closet, the flushing of the closet will be on the average about 4 times per head per day. 4th.—The house drain is regularly flushed. 5th.—The cost of maintenance is reduced to a minimum, plumber's bills being done away with absolutely. 6th.—The prime cost is less. 7th.—Less liability to get out of order through rough usage. 8th.—Diminution in the volume of sewage to be treated.

The Slop-Water system for out door closets is strongly recommended by those who are thoroughly familiar with it, and a perusal of the opinions of various public officials will bear out the above remarks. It is the best system that can be adopted for both large towns and small villages, and may be applied to the latter with excellent results, where a suitable drain is provided either with an outlet to a sewer or to a settling tank.

IMPORTANT TRIAL

RELATING TO -

SLOP-WATER CLOSETS.

The Corporations of Liverpool and Chorley at issue.

Several Water Companies, including the Corporation of Liverpool (who supply Chorley with Water), have objected to the adoption of Slop-water Closets, on the ground of its being illegal to make use of slop-water for flushing, we append verbatim report of a trial in the COURT OF QUEEN'S BENCH, which we think finally settles this question:—

Verbatim Report taken from the "Liverpool Courier," May 28th, 1892.

"ALLEGED IMPROPER USE OF CORPORATION WATER."

In the Queen's Bench Division, yesterday, the case of Evans v. Gornall again came before Mr. Justice Mathew and Mr. Justice Wright, in the form of an appeal by way of special case from the decision of certain justices of Chorley, raising an important question as to whether the inhabitants were entitled to use their waste water for water-closets or any other purpose.

Mr. Moulton, Q.C., with whom was Mr. Forbes Lancaster, continued his arguments in support of the appeal. He said that although the sum involved in this particular case was small, the point raised was one of considerable importance. The contention of Mr. Gornall was that having once used the water for domestic purposes he was entitled to use it in any way he liked before allowing it to run into the sewer. He (the learned counsel) submitted that the water was supplied expressly for domestic use, and there was no right on the part of the consumer to use it for any other purpose. If the use of the apparatus employed by

Mr. Gornall became general, not only would the special charge for water for water-closets be avoided, but the water which was supplied without limit for domestic purposes would be so lavishly used that the difficulty of the supply would be much enhanced. Apart from mere waste, they objected to the action of Mr. Gornall on sanitary grounds. It was true they were not a sanitary authority, but they objected to any connection between such an apparatus and their pipes.

Their lordships, without hearing counsel for the respondent, dismissed the appeal with costs. Mr. Justice Mathew said, in his opinion, what was contemplated by the section was a misuse of the water. It could not, however, be said that the respondent had in any way misused the water. Mr. Justice Wright said he was of the same opinion. The sole object of the section was to prevent a person taking more water under the colour of domestic use than was reasonably wanted for that purpose. There was nothing of the sort in the present case.

Appeal dismissed accordingly, with costs."

NOTE.—The Slop-water Closet fixed by respondent was one of Ducketts' Patent.

J. DUCKETT & SON, Ltd.,

Sanitary Ware Works, BURNLEY, Lancashire.

REPORT ON "SLOP-CLOSETS & TROUGH-CLOSETS,"

EMBODIED IN THE

Annual Report of the Medical Officer of the Local Government Board for 1890.

PAGE 15.—"The most effectual arrangement seen by me appeared to be the annular basin in the closets now made by Duckett & Son. In arrangement A, where the tipper is at a distance from the closet, the discharge from the tipper enters the pan at a tangent, and, after circling round it, is directed into the orifice in the centre by a stop; this gives a powerful whirlpool action, which completely clears the pan of all matters that will pass the orifice, whether lighter or heavier than water. In an experiment a large quantity of dry grass, enough to fill the basin, was completely removed by one discharge of the tipper."

PAGE 18.—"Whatever may be the advantages of so-called 'dry closets' in isolated houses or rural places, the advantages appear to me unquestionably to be altogether on the side of slop closets where sewers and water supply are available for the water carriage of excrement."

Page 20.—"Their less liability to be affected by frost seems to be a distinct advantage of slop closets over ordinary water closets for out-of-door use."

Page 20.—"On the whole, automatic slop closets appear to have some advantage over water closets in being less likely to get out of order. The slop flushing arrangement, by means of a well-designed tipper, is less likely to be deranged by careless usage than the water supply to a water closet, and it gives a better flush."

PAGE 22.—"Slop closets are, in my opinion, likely to be of great use (both for new houses and in substitution for existing privies) in the growing working-class suburbs of towns, where each house stands in its own curtilage, and has its separate closet; and especially where it is desirable to economise the public supply of water."

TESTIMONIALS.

From THOMAS DEAN, Esq., M.D., Medical Officer of Health, County Borough of Burnley.

"After many years' experience of your Automatic Waste-Water Closets, I find that they work satisfactorily when properly looked after, they are very sanitary, are more economical than clean water closets, there is a saving in the consumption of town's water, they do not freeze but maintain their efficiency under all climatic changes, and are altogether superior from a sanitary point of view to any other system of out-door closets known to me. I can strongly recommend their use on sanitary as well as economical grounds."

From WM. WILLIAMSON, Esq., Water Engineer and Manager, County Borough of Burnley.

"The Automatic Slop-Water Closets made by you have been very largely adopted in this Borough—there being several thousands of them in use.

On their introduction, eight years ago, I feared a great waste of water would be the result; but, I am pleased to state, after careful observation both by day and by night, that I find there is no waste of water.

I consider them exceedingly well adapted for the purpose for which they are intended."

Testimonials-Continued.

From Mr. JOSEPH B. MASSEY, Chief Sanitary Inspector, County Borough of Burnley.

"I have much pleasure in stating that your Waste-Water Closets fixed in this Borough are giving every satisfaction.

Up to date there are about 9,268 of your closets fixed, and this number is rapidly increasing.

I am convinced that the system is an excellent one for outdoor closets, and I know of many cases in this Borough where clean-water closets have been taken out and waste-water closets fixed in their places, for the simple reason that they are less frequently out of order, and therefore less expensive to owners.

During the severe winter of 1894-95 the blockages per cent. in clean-water closets were eight times more than in slop-water closets. I have never known a case of freezing up of a working slop-water closet.

Although we have many thousands of slop-water closets in use in the Borough, the annual cost to the Corporation in respect thereof does not exceed £130.

The slop-water system is an excellent one; the slop-water closet is very sanitary, and one that can be recommended to Sanitary Authorities for their adoption."

From A. CREER, Esq., C.E., City Engineer and Surveyor, York.

"We have used a considerable number of Ducketts' Closets in the City, where they have been an unqualified success. They meet the wants of all property owners, in that there is no charge for the water used, and no bills for damage through frost—two items of very considerable importance.

From a sanitary point of view I consider them eminently suitable for outside closets."

From J. H. TAYLOR, Esq., C.E., Borough and Water Engineer, Barnsley.

"For a considerable time I was loath to adopt Slop-Water Closets in Barnsley, on account of the fear I had that it would induce a wasteful and unnecessary use of town's water. I therefore, in the first instance, put two rows of ordinary cottages under the system. The water supply of these houses was carefully gauged by meter, and a census of the population dwelling in these houses was taken and recorded. The water supply to two similar rows of cottage houses, but on the ordinary dry-ash closet system, was also at the same time gauged by meter, and the population registered, as in the case of the slop-water closet houses, and the result was to clearly shew that the consumption of water per head of the population by the persons using the slop-water closets was the same as those using dry-ash closets.

The saving to the town is already very considerable, because the excreta from the cottages is conveyed to our Sewage Farm through the sewers, whereas, if the dry-ash closet system had continued, the removal of the excreta would only have been carried out at considerable cost."

From A. A. STOTT, Esq., Architect, Estate Agent, &c., Heckmondwike.

"Having specified your Slop-Water Closets for some years, I consider them efficient, cheap and sanitary.

Not being likely to get out of repair, they are well adapted for cottage property, &c."

Testimonials - Continued.

From J. W. BRADLEY, Esq., C.E., Borough Engineer, County Borough of Wolverhampton, late Borough Engineer, Nelson.

"The system of Automatic Slop-Water Closets was adopted in Nelson in preference to clean-water closets for outdoor use in all classes of property. At the time of my departure there were some 5,000 waste-water closets in that Borough. In many instances property owners replaced clean-water closets with slop-water closets although town's water was supplied to the former free of charge, and the cost of conversion in its entirety was borne by the property owners.

Numerous observations shewed a saving in the quantity of water used for closet flushing purposes as compared with clean-water closets, this of course meaning less sewage to be treated at the outfall works."

From J. W. WARDLE, Esq., C.E., Borough Surveyor, Longton.

"Your Slop-Water Closets have been in use in this Borough for the last five or six years, and with such satisfactory results that, in December, 1891, the Council resolved 'that flush closets be insisted upon in cases of erection of new dwelling-houses, and also where practicable in all cases of reconstruction of old closets."

I consider your Slop-Water Closet a most excellent sanitary arrangement for cottage property, and especially to be recommended on account of its freedom from risk of freezing up in winter.

From JAMES SAVILLE, Esq., Surveyor to the Urban District Council, Heckmondwike.

"It is about seven years since I first had one of your Automatic Waste-Water Closets. Since then they have been greatly improved, and I have been the means of a considerable number being fixed in this neighbourhood. During the last ten months about 110 have (through my advice) been fixed in Heckmondwike.

I have every confidence that, if properly fixed, they are the best means of removal of fæcal matter from outside conveniences. So far they have proved practically satisfactory."

From W. J. NEWTON, Esq., C.E., Borough Engineer and Surveyor, Accrington.

"After eight years' experience of the working of your Automatic Waste-Water Closets, I have no hesitancy in stating that I thoroughly approve of the system, and believe it to be the most sanitary, economical and satisfactory method for the removal of fæcal matter.

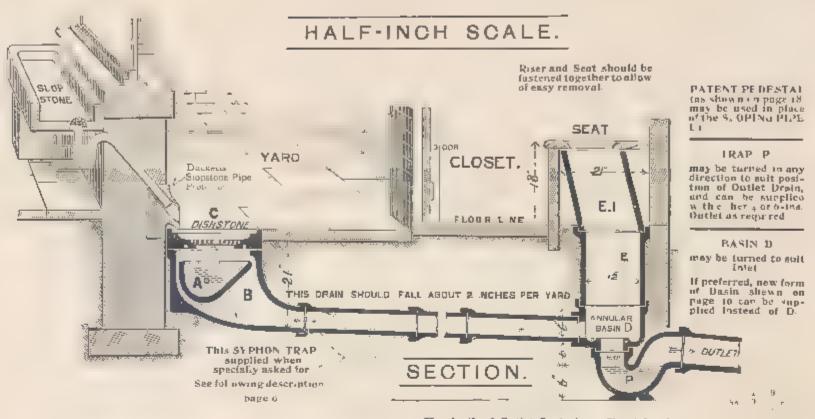
Since we adopted it here, over eight years ago, there has been a general improvement in sanitation, which is evidenced by the continued diminution in the death rate—last year 12.98 per 1,000. We consider our town one of the healthiest in Lancashire, fully three-fourths of the population are provided with the Waste-Water Closet, and so convinced is my Council of the efficiency and economy of the system, that a sum of £500 is set aside annually out of revenue, and a contribution, not exceeding £2 per closet, is made to property owners who will convert existing pail closets to the Waste-Water Closets.

For outside use I consider your Closets are far preferable to Fresh-Water Closets, for the following, amongst other reasons:—Ist. They are not affected by frost. 2nd. Saving of town's water, and cost of same. 3rd. Simplicity of construction, no mechanism to get out of order. 4th. The flushing does not depend upon the person using the same, being automatic. 5th. Cleanliness."

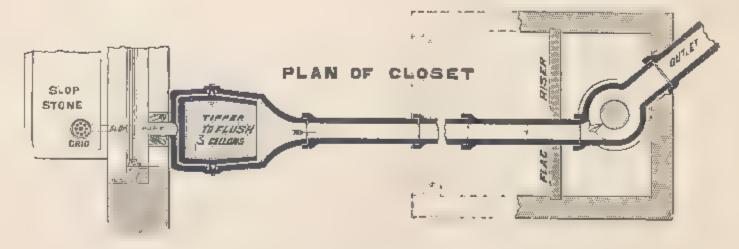
DUCKETTS' PATENT AUTO

ARRANGEMENT A.

6 25



The depth of Outlet Orain from Closef is shewn a 2-ft. 8-in. below Dishstone by the following figures it.



Description

THIS APPARATUS is made of Salt-Glazed Ware. It gives a powerful flush requires little attention is cheap and effective.

As Self-Acting Tipper of 3 gallons capacity, with brass stips ax 18, comper covers and executive beautiful audient audient see page 10. Guaranteed to take a action, thing which nearly fill and distinging with great force through the closet trap. B is Box for same. C Dishstone, 18-10. x 18-10. x 4-in. x 4-in. covering Lipper, and provided with 7 no square in migrate, secured with crass bods. D Patent Annular Basin. This with the special Trap P gives a very powerful flush. E Vertical Pipe. E 1 Stoping Pipe.

For Patent Pedestal see page 18.

MATIC SLOP-WATER CLOSET.

With Improvements (1894 and 1898 Patents.)

For longer distances Arrangement B (pages 12 and 13) is recommended.

The Syphon Trap adjoining Tipper Box (see dotted lines) is very farely required

The Pipe E should not be more than 3 feet long unless the Quatrefol Pipe described below or the Patent Pedestal described on page 18 is applied.

and 6-ins, marked on section. This will give depth of invert of closet out et drain below top of dishstone. Set Trap P and Tipper Box level, on a good, firm foundation. Make good all joints with Portland coment (except the joint between Pipes E and E 1, which should be made of soft material to allow of easy separation when necessary)

PRICES, or	n Rails at Burnley, in Salt-glazed Ware:	f. s.	d
	ete Closet, including A, B, C, D, E, E J, and P as shewn on page 8	1 10	0
ph ny	If fit up with Quatrefoil Pipe, as described below each	2	0
وسنها والهديا	If with Plain Pedestal and Plain Fixed Seat	8	6
OPTIONAL	and Varnished Hinged Seat, as per page 18	12	6
EXTRAS:	It ted ip will Amber En, melle it red 'eas a vit at Quiteo ith peach. Painted and Varnished Hinged Seat, as per page 18	10	6
	When Vertical Pipe E is required more than 18 is long for each foot	1	Q
* * * * * * * * * * * * * * * * * * *	If with Stanford Joint between Annular Basin and Trap . each closet	1	0
dra	If insides are required Enamel ed, 20 % extra will be charged on above prices		

In Ordering state which of the various kinds is required. Give approximate length of Pipe E.

Weight About 3 owts. per Closet,

QUATREFOIL PIPE.

The bottom part of upper pipe is formed into a quatrefold as shown on diagram. Above the quatrefoil the sides of the pan are suitably sloped to meet this form of opening. The design is to prevent large articles such as tins, etc., being thrown into the trap.

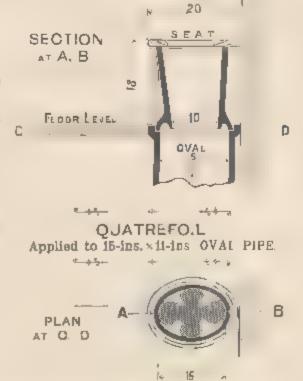
The quatrefor is much superior to the long narrow slit sometimes adopted for the same purpose.

Drawing shows quatreful applied to an oval pipe i_5 -its, $\times i_1$ -ins., but one to sail and the late of the property of the bottom is made. (Prices are of the sail and the bottom)

To facilitate access to closet trap it is advisable to fasten the seat board with screws, and to make the joint at floor level with soft materia

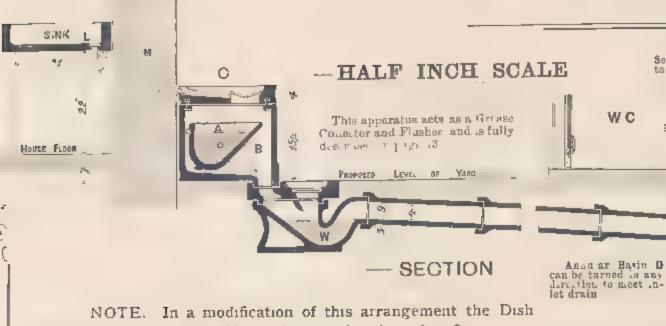
Note. Ducketts' Patent Pedestal, as described on page 18, is provided with a quatrefoil when required.

For Prices of Quatrefoil Pipe, see above.



DUCKETTS'

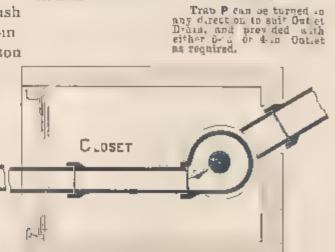
TO: WU SONU



NOTE. In a modification of this arrangement the Dish Brick and Special Trap W are dispensed with, and an 8-in × 4-in Trap substituted for them, which can be turned in any direction to suit position of Drain

YARD

PLAN



NOTE: -Riser and Seat may be attached to facilitate removal,

E.I.

ANXIKON.

Fig. 1 is a Section and Fig. 2 a Plan of Fig. 1 latest Patent Basin, which may be substituted for Annular Basin D if desired It has a circular flush and is very effective every part being cleansed.

11 pl 20 21

Minimum depth below top of Dish Brick.

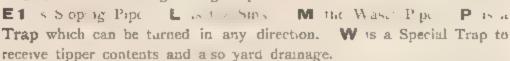
Fig. 2.

A1 Automatic Slop-Water Closet.

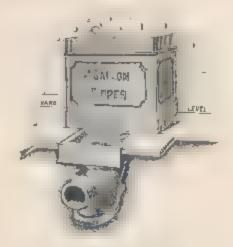
Description

THIS CLOSET is made of glazed ware, and is designed to reduce the depth of drain, also to render the parts more accessible than they are in other bottom-flushed Closets.

A is an Automatic Tipper mounted on brass bearings and provided with Patent Buffer fixed in Box B. G is a Channelled Dish to cover by Tipper D & Annular Basin. E is Lengthening Pipe.



The Box may have either a plain or an ornamental exterior as required. The Tipper strang nations sees the plain of the sees of the plain and gallons, the former is ample when drain leading to closet is short and with a fall of not less than one in twenty. A 4-gallon Tipper fixed as shewn exerts about the same force as the 3-gallon Tipper in Patent Slop-Water Closet, Arrangement B.



PERSPECTIVE VIEW OF BOX DISH TRAP, &c

Advantages

The Apparatus is easily fixed and at little cost.

Drains are shallow.

+3 + 2+

483334

The length of Vertical Shaft is 12 inches less than in any other similar Closet,

+2383+

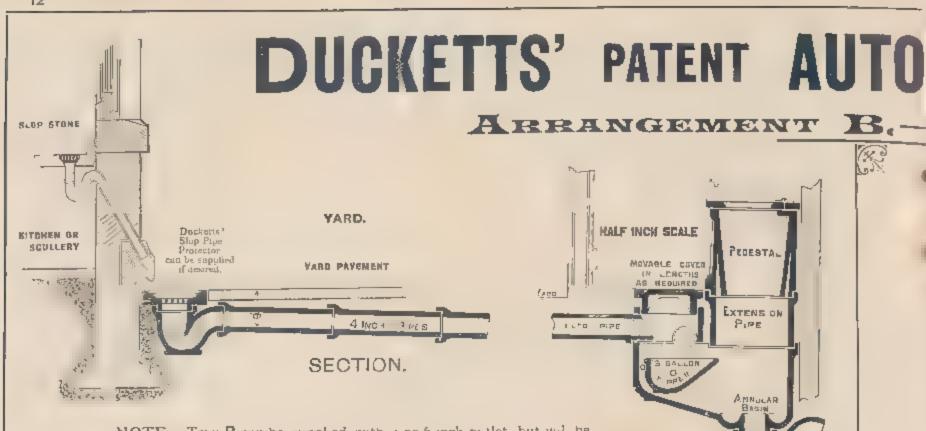
All parts are accessible.



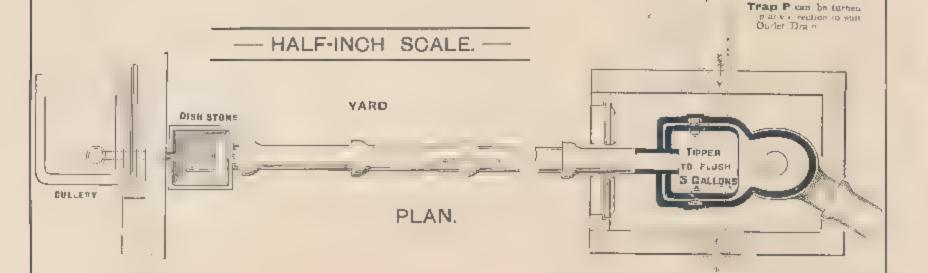
Prices, on Rails at Burnley, in Salt-Glazed Ware:

_	te Closet, who ng 3 gallor Tuper A Plan Box B and Cover C in D (or D I), Pipes E and E I, and Traps P and W									
	If with Ornamental Box and Cover for same, as shewn,	2	6							
	Bex a d Cever Erane led An bez Ware									
Optional	, 4 ga a T ppe r le col 3 gallon Lpper									
	" Plain Fluted Pedestal and fixed painted and varnished Seat	8	G							
Extras:	, Flured Pedestal in Enamel ed Amber Ware wit hinged painted) and varnished Seat]	0	G							
		2	6							

IN ORDERING state which form of Busin is required, D or D 1, Fig. 1, also whether Trap W or 8" × 4" Trap is required, prices being the same



NOTE. Trap P can be supplied with 4 or 6-inch outlet, but will be sent with a 6-inch outlet unless ordered otherwise.



IMPORTANT PATENT ACTION

In the Queen's Bench Lowision of Hor Majesty's High Cohro of Judice, and to the Court of Appe

The validity of our patent for this closet (.7991 of 1888), known as "Arrangement B," was strongly contested in the years 189±5, when we prought an action against a person who was making it without our license. After a lengthy hearing we were successful, judgment being

judgment of the Lower Court.

J. DUCKETT & SON, LId.

DESCRIPTION This Arrangement applies where closes and a good distance from the shostore, there is no produced as a fifthest in a power of from a respective. It is first on a respective that are successful and the flushing of the closet pain is the best that can be obtained, as the upper discharges with great force into the annuar basin and trap, producing an excellent scouring flush. The tipper is not hable to fouring by exercis, &c., as it is placed clear of the pipe, and the bearings of tipper are protected by copper covers.

The buffer is at the back of tipper, and consequently, more durable than when at the sides. It is fully described on page 19

MATIC SLOP-WATER CLOSET.

Vith Improvements (1894, 1897, & 1898 Patents.)

· . p Brickwork to protect upper container is now dispensed with, and the cost of fixing is reduced

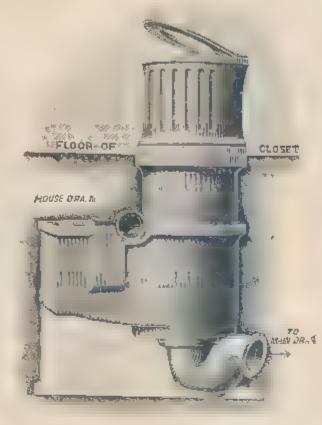
the closet floor to protect the apparatus and provide access to it. The improved accangement consists of the ear henware frame resting on the differ container, and a cover which telescopes into this and fit isnes level with the closet floor uses Section page 12. Packing pieces may be used when required. An iron key is provided for rais 1.

FIXING.

e uje sp

The instructions for fixing Arringenert Ais pages 8 and 9) apply in a large measure to tis Aira general. The deptito. Lap P S 1000 to Same to at cases Circuit Treate i fix ng the Trap and Tipper Box that a solic foundar an is obtained for them, so that no subsidence may take place.





Levels for Fixing.

To find how much the invert of oit et of Trap P should be below top of Dishstone

Fromyard level at dishsione. to invert of guiley outlet lo ig

s per 1 closet trap

hal of house drain i-inper yard, say

Note: When tipper is fed at s de, add 2 inches to above,

第二篇 电

IN ORDERING give approximate length of Extension Pipe, size of Outlet Drain, and state whether In molec I was Doesn's equired. Ducketts Patent Quatrefol. Pipe of processing with the second of the

NOIE. Ordinary Drain Pipes, Dishbrick, and Trap 3a, not included in the prices.

For either from or side inlet a special feed pipe, prepared to rest on top of lipper box is supplied; this is no aded in the price, and its use is recommended for this closet

PRICES, on Rails at Burnley, in Salt-glazed Ware .--£ 8, d. ht up wit P i er id in han han Sear

tit up wich Ambert amend Wire inter Pel stalk Quart I will publicly di and varn shed hinged Seat. (see page 18)

EXTRAS:

OPTIONAL

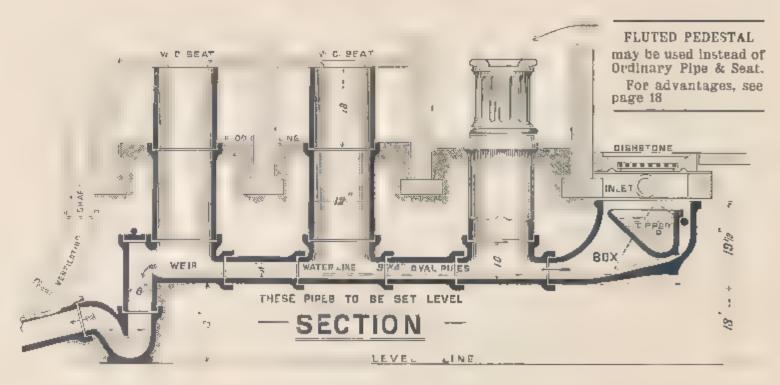
I or out Anbrahame ed Wire Free Peres and Quitero Aligabili 10 6 painted and varnished hinged Seat, as illustrated above f If fit up with Movable Cover over T.pper In the enmediate Versia, the proceedings of the resource and its solid If usides are required Enamel ed, 20 , extra will be charged on above prices.

Weight -About 31-cwts, per Closet

DUCKETTS' Patent Automatic

Arrangements C, C1, and C2.-

— ARRANGEMENT C.



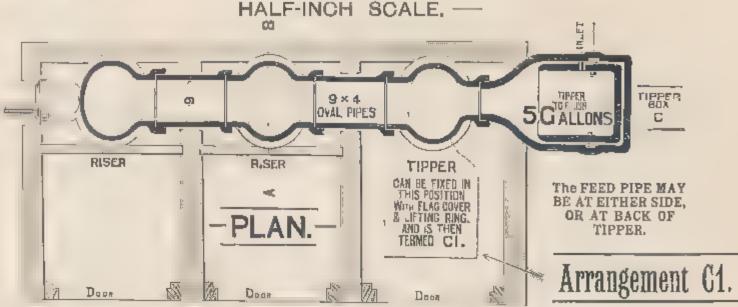


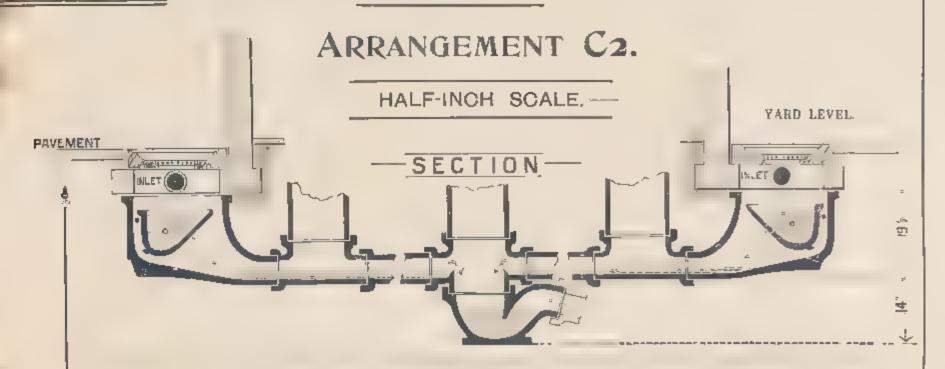
Diagram showing Arrangement applicable for Flushing 2, 3 or 4 Closets with a Five-Gallon Tipper.

When Flushed with Slop-Water only, to secure officency the water supply should be from as many Houses as there are Closets.

A 10 gallon Tipper can be supplied where extra flush is needed.

Multiple Closets. FLUSHED WITH SLOP-WATER.

th Improvements, 1894 and 1898 Patents.



By the above arrangement, o Closets can be efficiently flushed with two 5-gailon Tippers, when each Tipper is supplied with slop water from 4 bouses.

It will be observed that a Tipper is fixed at each end of the range, and the out et to diam is at or near the centre and can be turned in any direction to suit drain connection.

IN ORDERING state whether Arrangement C, O1, or O2, is required; give number and width of Closets, and thickness of walls, so that correct lengths may be sent. Also give approximate length of vertical pipe to But I Close and state wife let a leapper pipe is required plan, so any as only go but a state with particular Futed Pedestal as described on page 18.

NOTE. -To find length of vertical pipe, first ascertain how much top of tipper container will be below floor of Closet, then add 19 1-lns for depth of container, and deduct the 10-inches depth of basin

For Advantages of Oval Pipes over circular ones see page 23.

PRICES, on Rails at Burnley, in Salt-Glazed Ware:

						£	S.	d.							to	Б.	d
For	2	Closets	complete.	Arrangement	C or Ca	2	15	0	± Of	6	Closets	complete,	Arrangement	Cu	7	10	0
	3				4.1		12		6.4	7	4.0	- 11			. 8	10	0
7.3	4	, ,	14			_	10	_		8		4.1	**		9	- 5	0
33	No.	11	13	A	~				17	ŏ.	7.7	11	17	,,,	10	Ō	0
1.1	O	1.5	13	Arrangement	CA	O	10	w	3.1	9	31	1.1	13	31	10		0

If Amber Enamelled Fluted Pedestals with Painted and Varnished Hinged Seats are used, 10 6 each. These Pedesta's are much approved

OPTIONAL

If 10-Gal on Tipper is supplied in place of 5-Gal on Tipper, 30 - per Tipper If insides are required Enamelled, 20% extra will be charged

EXTRAS:

If with Stanford Joint between Basin and Trap, 1 each

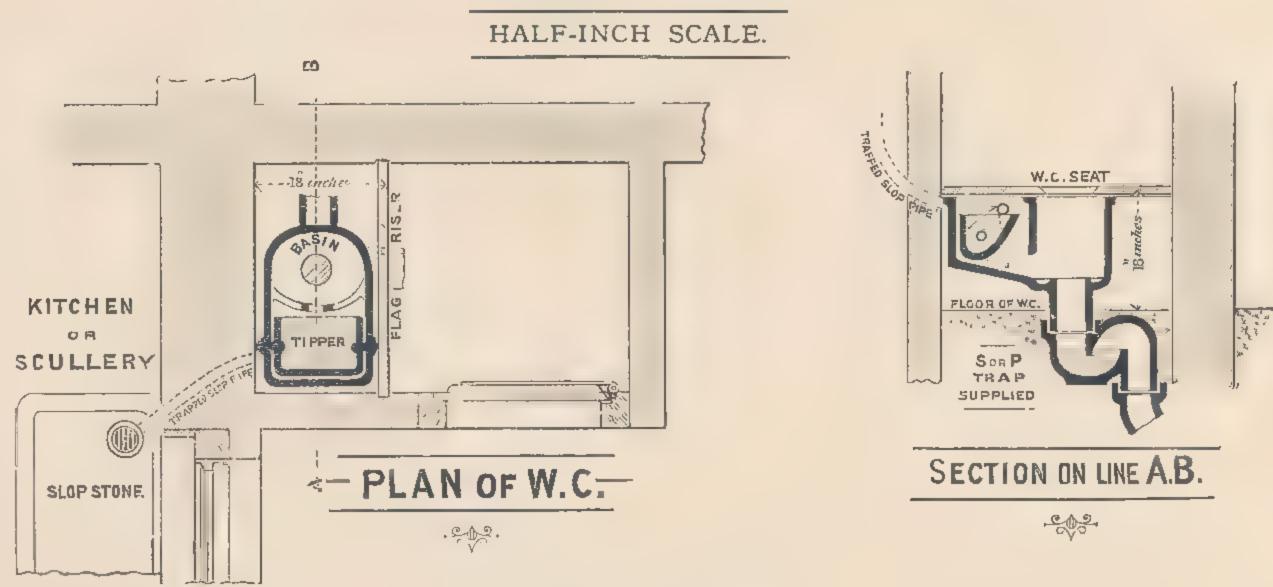
Painted and Varnished Pine Seats, as per Closet No. 2, page 22, 5 - per Closet-When more than 3-ft. of Ova. Connecting Pipe is required, 1 - per extra foot

WEIGHT of 3 Closets, with one 5 pattern Tipper, &c., about 9 cwis.

DUCKETTS'

Patent Automatic Slop-Water Gloset.

BLACKBURN PATTERN.—



. . . Description

This Arrangement is adapted for positions where W.C. adjoins the building, and when the outlet drain is too near the surface for A or B Arrangements.

It will be observed that the lead pipe from Slopstone discharges direct into the Tipper, and that the Tipper is fixed above the Closet floor. NOTE.—The lead pipe should be trapped.

This Apparatus is very compact, the smaller size (to flush $1\frac{1}{2}$ -gallons) being only 23-ins. long and 16-ins. from front to back, and the larger size (to flush 3-gallons), 30-ins. x 18-ins.

The Seat Board covers both Tipper and Basin, and should be fastened with screws to give ready access.

PRICES, on Rails at Burnley, in Salt=Glazed Ware: -

Closet, (larger size), including Basin, Tipper, and Trap...£1 8s. 0d. Smaller Size...£1 6s. 0d.

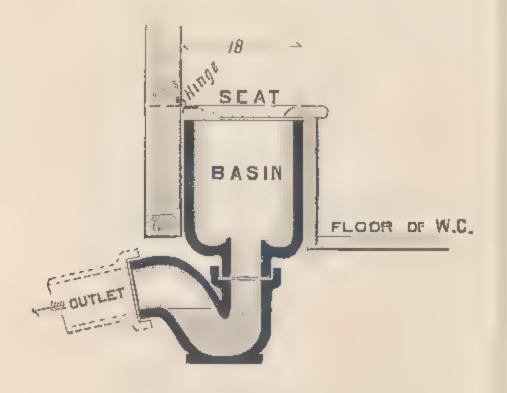
If insides are required Enamelled, 20 per cent. extra.

If with Stanford Joint between Basin and Trap, 1/- each extra.

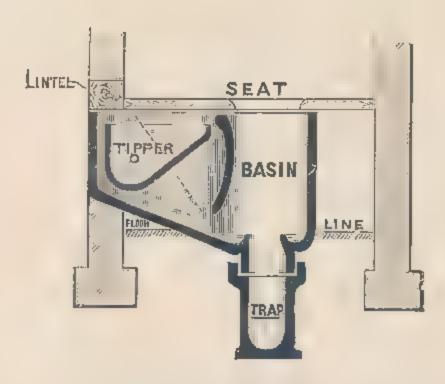
DUCKETTS' PATENT AUTOMATIC W.C.,

FLUSHED WITH

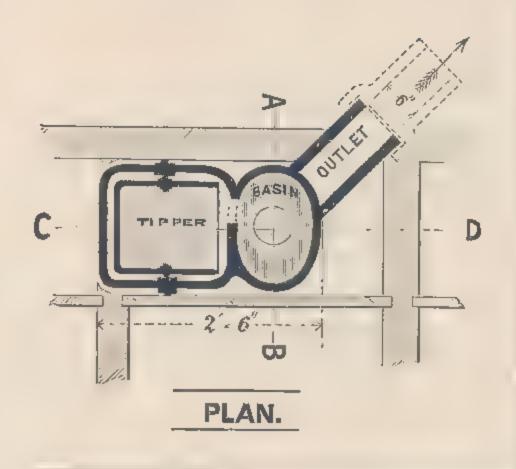
HALF-INCH SCALE.



SECTION ON LINE A.B.



SECTION ON LINE C.D.



FRESH or with SLOP WATER

.6x Ko.

For Mills, Weaving Sheds, Workshops, &c.

· (e7.76).

This Apparatus is well adapted for Water Closets in Ranges, but may also be used for single ones.

C+2

Fresh water is fed into the Tipper, and can be regulated by means of a small tap under the Seat. A dribble is found quite sufficient.

To prevent waste, water supply should be turned off when mill is closed.

Seats should be hinged and fastened with catch, or lock, to prevent the Tipper or the tap being tampered with.

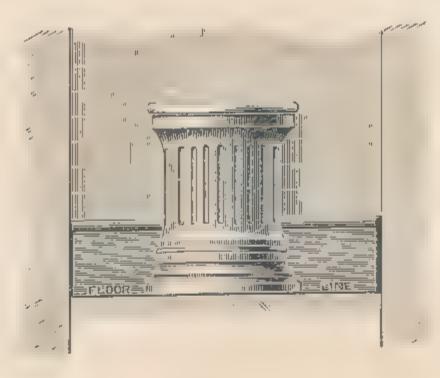
NOTE.—Special Closets of this type, with back inlet for house drain, are also supplied.

PRICES, on Rails at Burnley, in Salt=Glazed Ware:—

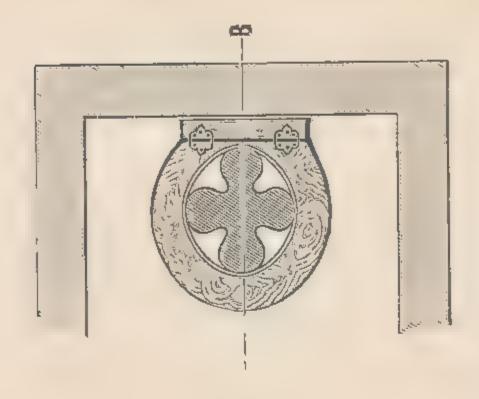
£1 8s. Od. per Closet, including Basin, Tipper and Trap.

Special Closet, as described, £1 10s. Od., including Basin, Tipper and Trap.

When insides are Enamelled, 20 per cent. extra will be charged. If with Stanford Joint between Basin and Trap, 1/- each extra



- ELEVATION. -



PLAN.

FLOOR LINE

NOTE.

Pedestals, without Quatrefoil, called No. 2.

With Quatrefoil, called No. 2.

SECTION ON LINE A.B.-

SCALE, 3/4-inch to a foot.

Ducketts' *

PATENT

* Pedestals

For Slop-Water Closets & Latrines.

These Pedestals dispense with the Ordinary Flag Riser and Seat, and make a Neat Finish.

— Description.

The Pedestals are of best Amber-Enamelled Ware.

The Seats are of best 11/8" pine, painted two coats and varnished.

The Hinges (2¼") are of polished brass, with brass pins, specially made and firmly secured to the Ware with brass bolts, and to the seats with brass screws.

No. I Pedestal is $14\frac{1}{2}" \times 11"$ at the top, and $12" \times 9"$ at the bottom, and gives at least an inch projection all round to throw the water, &c., clear of the pipe below. See Section.

The No. 2 Pedestal has a Quatrefoil, the inside platrefoil, being tapered from the top to the Quatrefoil shape at the bottom, as in plan. The object is to prevent large articles, such as tins, &c., being thrown into the trap.

- Advantages. -

1.—As the seat is hinged, the Closet can, with propriety, be used as a Urinal or Slop Sink.

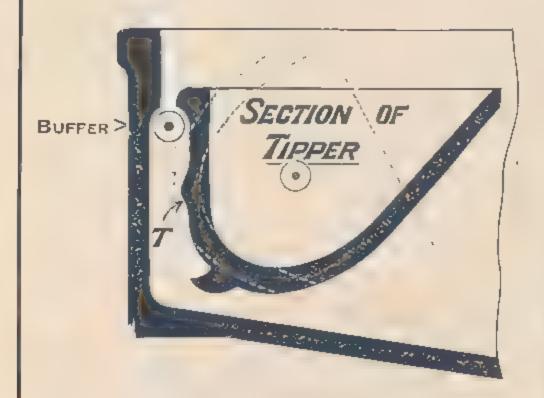
2.—The Pedestal can be readily removed to give access to the Closet Trap.

3.—It has a better appearance than the ordinary flag riser and seat, and is more sanitary.

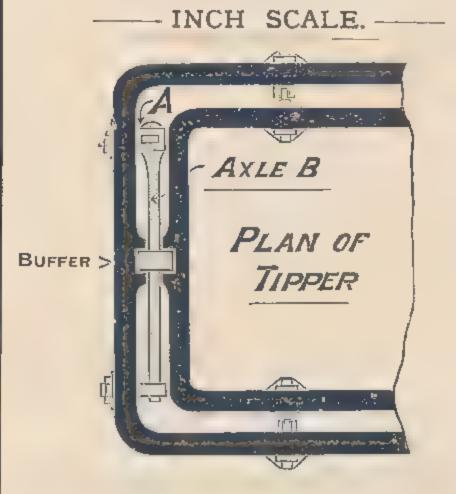
IN FIXING, the flange of pipe on which the Pedestal rests must be flush with floor, as shewn on drawing.

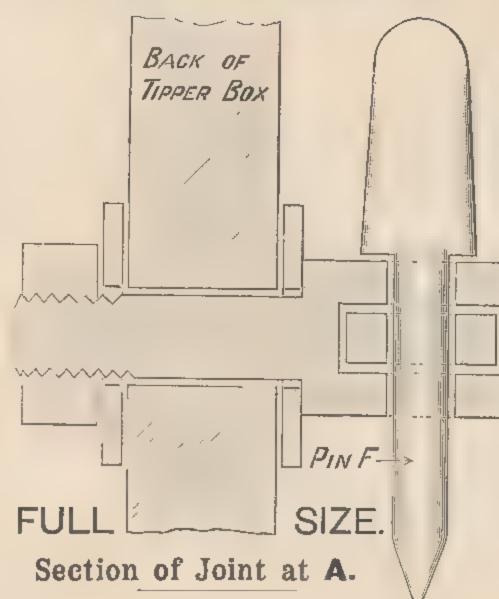
IN ORDERING, say whether No. 1 or No. 2 Pedestal is required.

PRICES, on Rails at Burnley, in Amber-Enamelled Ware:-



PLAN AND SECTION
SHEWING BUFFER IN POSITION.





DUCKETTS

IMPROVED

Patent Buffer

FOR AUTOMATIC TIPPERS.

This BUFFER is a great improvement on those hitherto used.

The Rubber fits loosely on the Axle B, so that when the tipper tilts, the small projection T bears slightly against the Buffer, causing it to revolve somewhat. Concussion is thereby distributed instead of being always at one place as heretofore.

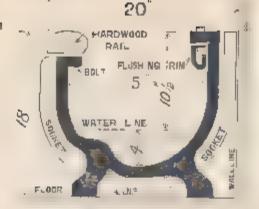
The Buffer has an aluminium lining to facilitate movement and to prevent any chemical action of rust or verdigris injuring the rubber.

Axle B may be released by removing Pin F, so that a new Buffer can easily be fixed in position when required.

By these arrangements renewals are rarely needed, but, when required, are readily and inexpensively made.

NOTE.—Buffers can be sent loose if required, and put into position after closets are fixed, thereby reducing the liability of removal by children or mischievous persons.

The Improved Buffer is supplied to Automatic Tippers without any extra charge, and Rubbers for renewals at 6d. each.



DUCKETTS' IMPROVED

SYPHONIC.

PROTECTED

CHEAP,

EFFICIENT,

AND

STRONG.

LINE

ENLARGED CROSS SECTION

NOH SCALE

Description.

These Closets are made of highly-glazed ware. They possess important advanages over others on the market, and are efficient and sanitary.

The Trough is emptied by suphonage and automatically re-charged with clean water

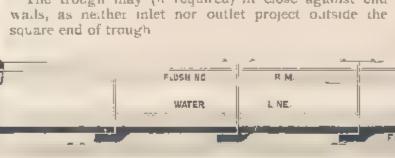
The Cistern supplied for this purpose is of glazed stoneware, or of galvanized iron, and constructed on the latest syphonic principles. All the water is used for cleansing and re-filling the trough, and none wasted in starting syphonage. Capacities of disterns vary to suit troughs

The Special Plushing Rim and Conduit, besides conducting water for flush, acts as a flushing rim for cleansing that purt of the trough which is liable to soring.

A Hard Wood Rall 31/4" x 2", with boils for fixing same, are provided for front of trough, as shewn on section.

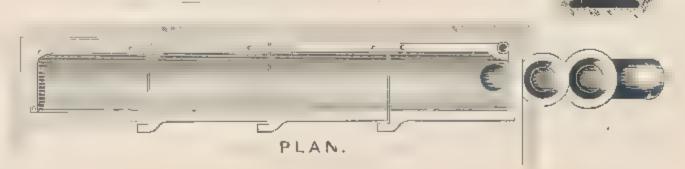
> Recesses for Cramps are prepared in top of trough, and suitable cramps are supplied.

> The trough may (if required) fit close against end square end of trough



LONGITUDINAL SECTION

HALF-INCH SCALE



Advantages

In FIXING, care

shop d by taken to lenve

the trough level and to cauly and make all joints

An que under each joint should be left in

the floor for a short and atter trough is charged with water to test joints

watertigh

- . Flush is automatic and powerful.
- Back of trough is well cleansed.
- Splashing prevented during flushing as the water does not flow in a rush, consequently the naisance at this time is greatly reduced.
- 4 -The water service measures 13 inches wide, and at the deepest part is 4 inches.
- 5. Deep water seal. This not only prevents foul ar passing through from outlet, but it prevents arge articles passing from trough into the outlet drain.

3 MLET ...

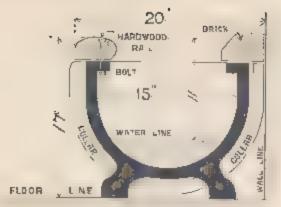
- No waste of water to produce syphinage al, used for flushing and re-charging trough.
- 7. Syphonage in trap A stopped at right moment, after which the trough is left re-charged with c ean

In Ordering, state exact length over all. Stock Lengths of the pieces which form the trough are 3ft. and 2ft. am., measured from joint to Joint when fixed, but any required length of complete trough can be supplied as required.

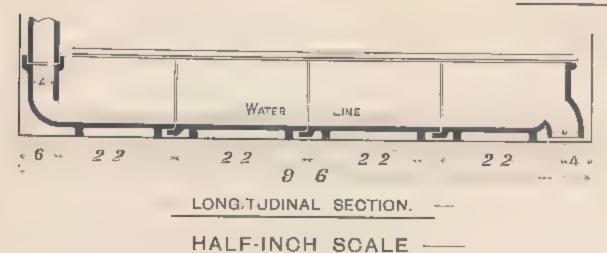


TROUGH CLOSETS.

NON-SYPHONIC.



INCH SCALE.



These Troughs are made of like material and in same lengths as those for Syphonic arrangement.

The instructions as to Fixing and Ordering given on previous page apply also to this arrangement

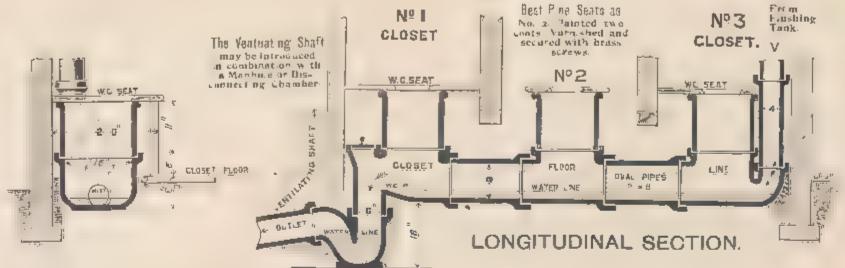
PRICES on Rails at Burnley (in Salt-Glazed Ware):

SYPHONIC ARRANGEMENT, as most ated, with Colvar Zed Lonio Stirewale Automatic Flushing Clatern and Brackets		15	
Extrairea addite al meastrib formg, relating extra apacity of Castein ,		15	
NON-SYPHONIC ARRANGEMENT, 48 1 strate 1 with Ga vanized Iron of Stoneware Automatic Flushing Cistern and suitable Brackets	7	0	0
Extra fer each add to all meas foot of Trong , reading extra aspacity of Castern .	0	12	0
If Fushing Run is included it No Synthe Arrangement an addition of is, 6d per lineal flot is made on above prices.			
If Wood Rail is smitted, a reduction of Coling near flot is made from above prices.			
Extra, t Loughs are in A her Enameled Ware per lineal foot	^	0	0
Extra, I It ughs are in A ther Enameled Ware per lineal foot	U	0	U

DUCKETTS' PATENT

Suitable for Schools, Mills, Old Property,

For particulars of Flushing Tanks see pages 30 and 31.



SECTION AT A. B.

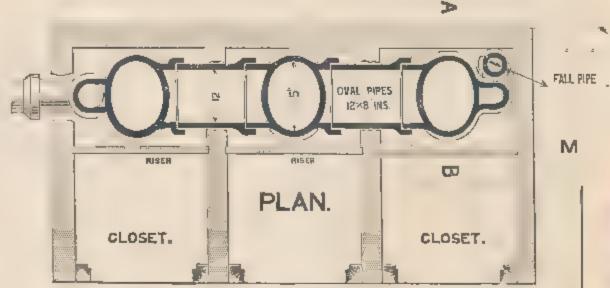
NOTE. The distance from Sent to Water Line is shown as inches, which is recommended as preventing speasing. It may however be varied if required.

FLUSHING TANK may be fixed above the seat or in position murked M on plan. For particulars of Flushing Tanks see pages 3: and 31

- HALF INCH SCALE. -

Advantages.—

- I. A Range of 4 Closets can be flushed effectually with a less quantity of water than usual by using a logal on Automatic Flushing Tank, as described on page 30. The cleansing of the ova pipes is more effectual than in circular ones (see page 23)
- 2 The volume of water to be displaced when flushing in minimised by the oval pipes.



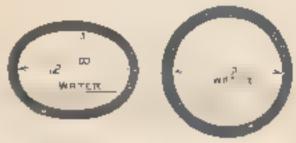
NOTE.—The special attention of Architects is drawn to these Latrines as being economical, sanitary, efficient, and very largely used.

LATRINES FLUSHED WITH CLEAN WATER.

&c., where Closets are in Long Ranges.

— Description. ——

The Oval Pipes 2-ins, × 8-ins, have deep and wide sockets to leave ample room for cement or other jointing material. The pipes are provided with a weir at the outlet end, so that a sufficient quantity of water is retained in them after each flush. Pipes 12-ins, in diameter have generally been used for Latrines, but the Ova Pipes of these dimensions give a stronger flush, because, with nearly the same surface of water, there is a much less volume of water to displace, as will be seen by the accompanying sections



Soiling of back of Pipe a second considering of the vice space of post of the leave, and estrated. The fall pipes from flushing tank may be of sanitary ware, or iron.

IN FIXING. When the foundations are defective a good of forme eshall we add ador to oval paper and has us. These should be fixed level, so that water will stand in them as shewn. When circumstances permit, it is well to lay these papers before division walls are built

All Joints should be made perfectly water-tight.

It is an advantage to fix the Flushing Tank in a separate erection, as shewn at M on plan, but when creatists and a to a first of the set perfectly level and firm, and should be supported on a ght wrought iron garders in preference to wood. See page 30,

th Ordering. Symmether Flashing Tank No. 1, 2, or 3, is required. See pares 30 and 31. Nos 2 and the spicio Wate or Galvan zed Iron, as preferred; No. 1 of Ware only. Prices are the same whether 1 galvan zed rollor ware

Supply figured sketch showing width of Closets and thickness of walls; also position of Fit shing Tank.

Say whether Pine Seats (as injustrated on Closet No 2, page 32) at an extra cost of 5 - each, or Fluted Pedestal and Seat, (as described on page 18) are required. If Pedestal extra required, the sockets of pipes must then be fixed level with floor of W.C., as shewn on page 18. Also state be 5 to 8.74 \times above floor 1 ne

--- PRICES. -- Sall Jaka' ...

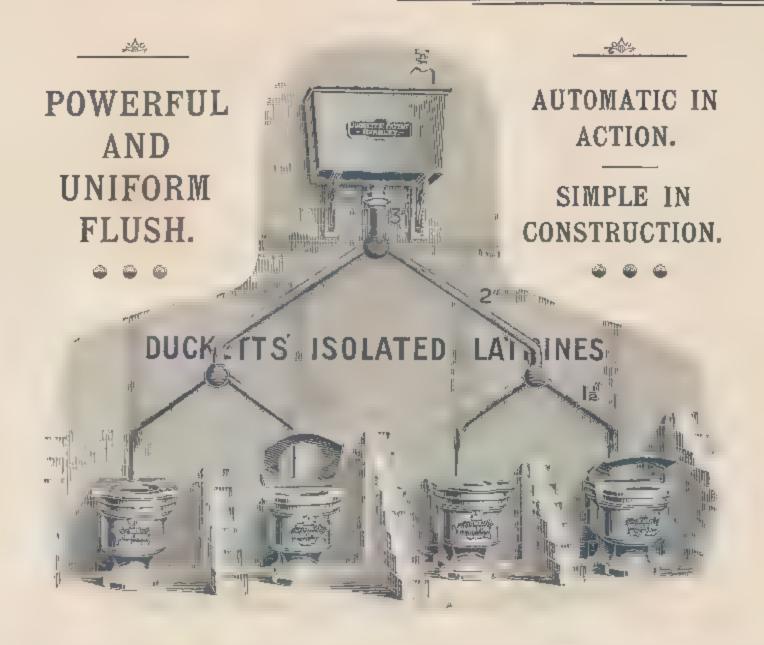
Including Basias, Connecting Pipes, Vertical Pipes, and Trap, but no ordinary drain or fail pipes. For prices of Faishing Tanks see pages 30 and 3...

For Seats, in Sa	do do	3 0 0 3 15 0	. 7 10 No. 2 10 No. 1 G to J Ward 7 10 0
6	60	4 10 0 5 5 0 6 0 0	9 15 0 10 10 0 1 5 0
11	do	6 15 0	Delivered on Rails at Burnley.

When more than 3-feet of Oval Connect ng Pipe is required, I 6 per extra foot.

WEIGHT For 3 Scale exc. sive of ord to 3 drampipes and a tierwis

DUCKETTS' PATENT ISOL



These Isolated Closets closets to be kets' Paris, "Whirlpoor" Closets axed a mare. Busher anomalic by a "territage Language Langu

The Pedestal weighs about 90 lbs., and has a broad base. The sides of Basin are nearly perpendicular, a 0.1. water of the $x = \frac{1}{3} \times x^2 = x = 0$ seek x = x = 0 and x = x = 0 minimising the possibility of soiling.

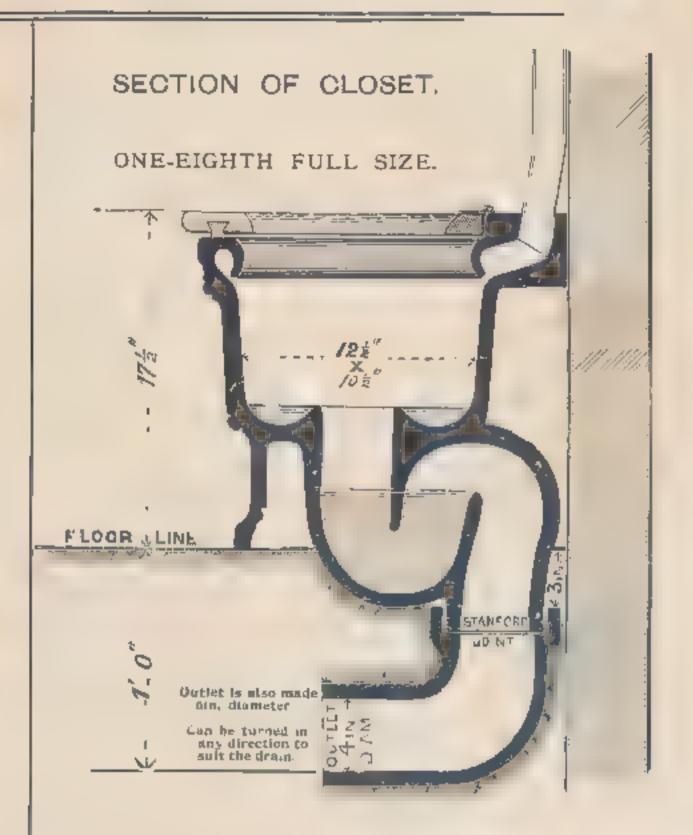
The Seats are of best pine, hinged or tast as may be required, and can be supplied either painted and a consecution of the section of the sec

In Flushing, water is discharged through the flusting rim with great force, it swirls round the sides of the basins, and effectually cleanses them. The swirling or "Whirlpool" motion produces a powerful and effective flush.

The Cisterns are automatic in action, and vary in size according to the number of Closets to be flushed. J. Duckett and Son, Ltd., recommend a flush of 4 ga lons per Closet

If preferred, strong Ware Flushing Pipes may be used instead of lead pipes.

ATED CLOSETS IN RANGES.



Advantages

Large Water area in basin.

No brackets or nozzle required for Closets.

Little liability of breakage.

Exceptionally powerful flush.

Trapeasy of access.

· Juneal

Prices on Rails at Burnley, which States e 2 csts on as Ponton and Automatic Frashing Tanks (of Capacities equal to 4 gailons per Closet) and Brackets for same s

						£ 8	d,					£ s	- {	d
For	3 5	eats as	above -			5 15	0	For	9	Seats	as above	14.1	5	0
- 11	4	11	2.1			7 5	O		ΙQ	12	l+4	16	5	0
11	5	11	11			8 15	O	- 11	11	11	11	17 1	5	D
17	6	11	7	٠		10 5	٥	++	12	1.7	19	19 !	5	0
13	7	3 =	1			11 15	Q	11	13	11	1)	20 1	5	O
19	8	2.1	33		h	I3 5	0	1.1	14	1 €	,	22 5	5	0

Extra if in Amber Enamelled Ware, 20 on above prices

Do. for each Seat if hinged, painted and varnished	0	2	0
Strong Lead Pipes for four seats prepared as illustrated	2	5	0
Strong Enamelled Ware Pipes for four seats	0	15	0

PROTECTED.

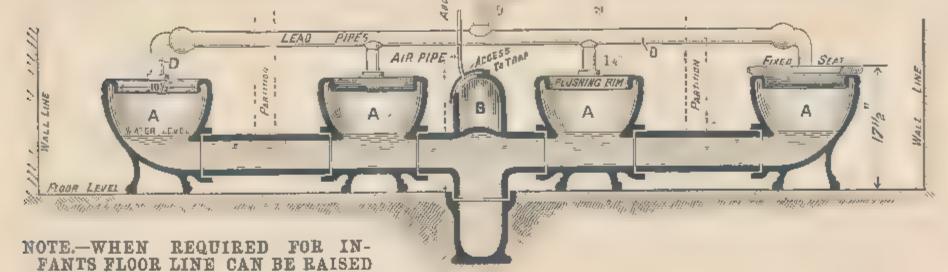
DUCKETTS

AUTOMATICALLY

Ser.

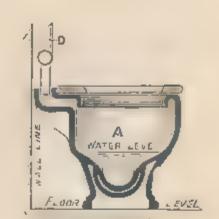
THIS RANGE

FOR CHILDREN.

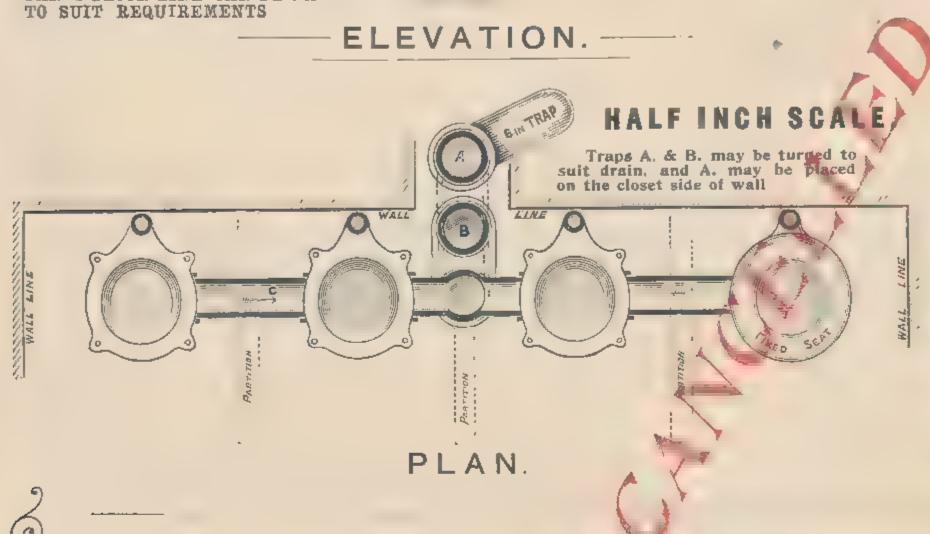


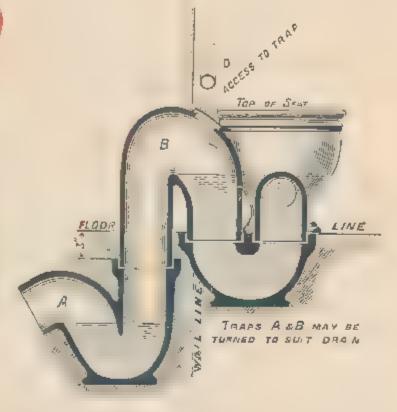
LEVEL

GALLONS FLUSH TANK



SECTION THROUGH BASIN.





SECTION THROUGH TRAP.

. . . Description .

THESE CLOSETS are constructed on the latest principle, they embody all the good points of other Isolated Latrines, and possess important advantages over them.

The Basins are in pedestal form, constructed of highly-glazed ware, and handsome in appearance. Those for children have a water area 13" × 12", and those for Adults 14½" × 12". The water line in former is 9" below top of seat and in the latter 10¾".

Pipe F is to promote syphonage and to admit air automatically to stop syphonage in cistern at the proper moment. A stop-tap for emptying range is provided when required.

The Cistern is made of glazed stoneware or galvanised iron as preferred, and is supplied with the best fittings. It is automatic in action, and of sufficient capacity to thoroughly cleanse the basins and to re-charge them with clean water after flushing.

NOTE.—The cost of water for effectually flushing a range of closets as illustrated should not exceed 4d. per week with water costing 10d. per 1,000 gallons and when supply is shut off at nights and week-ends. By actual test a range as illustrated with 24 flushes per week has been found sufficient for 200 persons.

THLEGRAMS:

Telephone No. 76.

The The The The Table

SUITABLE FOR

70.01

THESE CLOSETS are constructed on the latest promple; they possessed the good points of other Isolated Closets in Ranges, and have important advantages over them.

11-11-11-11

The Basins are in pedestal form of highly chanacled story cure, and may be on apply a right. The studies are in pedestal form of highly chanacled story of state. Each less than by 12 meters and 9 inches below top of state. Each less than a right spring has a time that we carried to the

The Connecting Pipes invect basis of evaporal strong as demonstry of a septim.

The Outlet Trap has be placed at terms of a series of which pare the companies of the cappoint.

There is and some to fix to the cast the range and the back with the call bears is supported a series of the range and the back with the call bears is supported as a conference of the conference.

THE CISTERN IS A Strang with model and the control of the bod of t

The Flushing Piges on of surar costnery and a removed as replaced and when sure as marked ready through

As extracts pressing in a server pressing it will a stop tap, so the construction of a server pressing in the construction of the server of th

J. DUCKETT & SON, LTD., Manufacturers of Sanitary Ware, BURRIEY, LANCASHIKE.

TELEGRAMS: "DUCKETTS', BURNLEY"

Telephone No. 76.

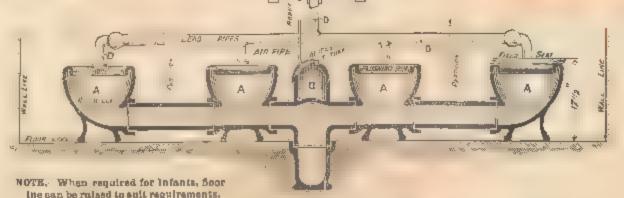
C-6053

CKETTS' PATENT

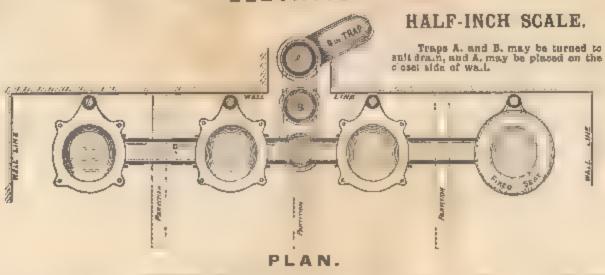
SUITABLE FOR

Rwarded the Bronze





ELEVATION.



. . . Description

THESE CLOSETS are constructed on the latest principle they possess all the good points of other Isolated Closets in Ranges, and have important advantages over them

The Basins are in pedesta firm of righty enameled stoneware, and handsome in appearance. The standing water sartice is 13 ircles by 2 inches and 9 nones below top of seat, back bask has a strong flushing rim with vertical inlet.

The Connecting Pipes between basms are except mally string and connecting pipes or any required length. The Outlet Trap may be placed in the mode of range cas shown in plan in many other required position There sample spice to the Literated the range and the men and. She, I have is sipplied when let et siprete red affact 238

The Cistern a fistring gas as section but car he sipplied to home and stoneware if prefer ed and extre-Atter ate and ish graph atte All firings are of the fest country law estern support is I suffice it flushing capacity to thoroughly cleanse the basins and to recharge them with clean water after flushing.

The Flushing Pipes are of strong cast from painted a gawanised as regarded, and when sent out are all marked recay for fixing.

A start rape sand cases provided wit a stop tap, so that the range may be symboled empty when required

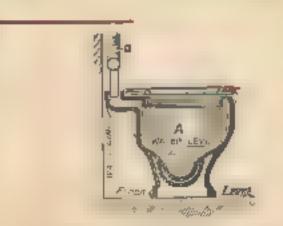
J. DUCKETT & SON, LTD., Manufacturers of Sanitary Ware, BURNLEY, LANCASHIRE.

LATED CLOSETS IN RANGES

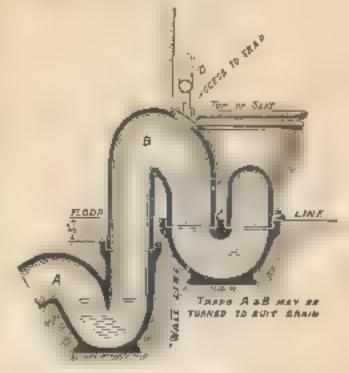
SHED BY SYPHONIC ACTION.

HOOLS, MILLS, BARRACKS, INSTITUTIONS, &c.

edal of the Sanitary Institute, Sauthampton Exlicition, 1899.



SECTION THROUGH BASIN



SECTION THROUGH TRAP

Advantages

- I. There is no waste of water in starting syphonage, as all the water passes through the basius.
- 2 The water level in basins is not raised to produce syphonage
- 3 Syphonage in range ceases when basins are cleansed, but a sufficient supply of clean water re-charges them after each flush
- 4. The pedestals and connecting pipes are made extra strong
- 5. A minimum quantity of water required for efficient flushing
- 6 The range can be read to emptied of water when not in use Damage by frost thereby prevented
- No india rubber comes required for connections between flushing pipes and basins

-- Instructions for Fixing -

The basins must be fixed level with each other, and all joints made perfectly watering it and airtight. There must be no trap between that marked (A) and main sewer or disconnecting chamber.

Experienced men sent out to fix ranges when required.

in ordering state lengths between basins, also neight from floor to top of cistern, so that the exact lengths of connecting and flushing pipes may be sent.

Prices on Rails at Burnley,

Including pedestals, connecting pipes and outlet map in highly enamelled amber stoneware, galvanised from syphonic flushing distern (automatic or hand flushed), painted wrought from brackets and strong painted cast from flushing pipes, air exitation pipe and stop tap for emptying range also fixed varnished pine seats, all complete ready for fixing:

	£ s. d.	1	£ s. d. 1		£ s. d
For 2 seats	8 0 0	For 5 seats	16 0 0	For 8 seats .	23 10 0
a 3 a	11 0 0	я 6 н	18 10 0	, 9 ,	26 0 0
				, 10 n	

SPECIAL QUOTATIONS GIVEN FOR LARGE QUANTITIES.

J. DUCKETT & SON, LTD., Manufacturers of Samtary Ware, BURNLEY, LANCASHIRE.

. Horrs

0031 5035-

LELLY CALLERY --

- I There is no waste of waler in starting syphonoge, as all the water
- The water level in bosous is not raised to produce syphonage chooses in range ceases when bosins in diennsed, but a sufficient supply of two noward is connected into the dead flush.

The pedestals and condour, types are made exita strong

- A minimum quantity of water required for ethe ent flushing
- b. The sarge can be readily empired of water when not in use. Damage by trost thereby prevented.
- 7. No india tubber cones required for connections between flushing pipes and basins

Instructions for Fixing --

Fig. 1, and a principle of winds a otocy, and a prints nonfe perfectly by a 1 and a 1 and (A) and by a 1 and between that named (A) and named a second of by a 1 and a

Experienced rien sent out to fix ranges when required.

to the section of this we sell the reason to the name of the participate of the section of the s

on Raris at Burnley,

syphone flushing costein caucomatic or hand flushed, painted wrought from brackers and wrong painted cast from flushing process, are extractor pope and stop top top emptying range also nived varioushed pine.

For 2 scats 8 0 0 1 / resists

STOT ON THREUGH PASIN

EFCT ON THROUGH THAP

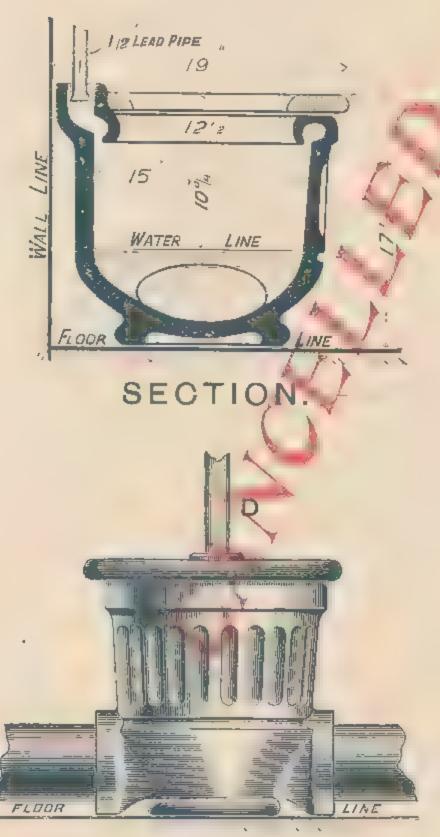
mend the contract of the partition of the partition of the partition of the contract of the co

J. DUCKETT & SON, LTD., Manufacturers of Sanitary Ware, EURNLEY, LANCASHIRE.

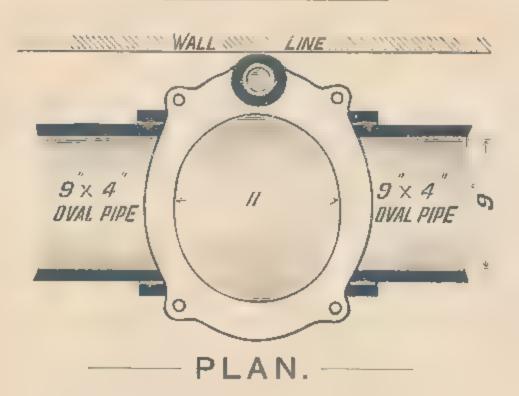
Isolated Glosets in Ranges

FLUSHED BY SYPHONIC ACTION.

FOR ADULTS.



ELEVATION.



SCALE-INCH TO A FOOT.

— Advantages —

- I.—There is no waste of water in starting syphonage, as all the water passes through the basins.
- 2.—The normal water level in basins is not raised to produce syphonage.
- 3.—Syphonage in range ceases when cistern is about half empty, after which the basins are re-charged with remainder.
- 4.—The pedestals and connecting pipes are made extra strong.

Instructions for Fixing

The basins must be fixed level with each other, and all joints made perfectly watertight. There must be no trap between that marked A and main sewer.

Prices'on Rails at Burnley, in Salt-Glazed Ware,

Including Stoneware Pedestals as illustrated, Connecting Pipes, Outlet Traps, Automatic Syphon Flushing Cistern, and Brackets:—

			£	S.	d,						$\pm f_i$	S.	d.
For	3	Seats	 5	15	0	1	For	7	Seats	5	11	15	0
11	+	+	7	5	0		13	8	23		13	5	0
1.1	5	4.4	 8	15	0		22	9	2.3		14	15	0
11	6	h h	 10	5	0		,,	10	33		16	5	0

If in Amber Enamelled Ware, 20% extra on above prices.

Extra for fixed Plain Pine Seats5s. 0d. each.

NOTE.-Flushing Pipes D.D are not included in above prices

In ordering state which form of Basin is required, and whether Stoneware or Galvanized Iron Cistern is to be sent.

DUCKETTS PATENT W

"The CLENCHER" No. 1.

SUITABLE FOR OUTSIDE W.C'S.

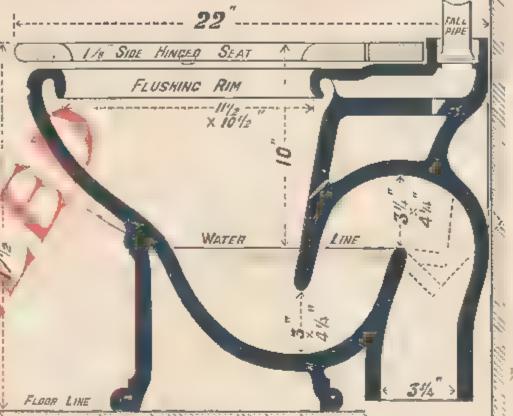
AWARDED THE ENONZE MEDAL OF THE SANITARY INSTITUTE, LEEDS EXHIBITION, 1807.



Instructions to Plambers

Fall-pipe should dip about an inch below the ware, and be made slightly bell-mouthed to form a rest for cement or put. The latter can be used when the end of pape as made to it. I the opening.

sults, one of Ducketts Pluiger Cisterns should be an rected with this Closet.



Outlet is %-in. above Closet

- SECTION.

SCALE: 13 INCHES TO A FOOT.

A Bend or elbow is connected with Outlet, and can be turned in any direction to suit drain.

Joint being above floor is very accessible.

DESCRIPTION.—This Pedestal Closet is self-contained The Trap has a 2-inch seal, and is of such form and construction as to give the best results

The Flushing Rim is on the most approved principle, and the two oblique channels connecting it with the fall-pipe are an important feature in this Closet. No shield to flushing rim, consequently less fouling. No rubber required for nozzle.

The Seat is hinged to a back rail, which is bolted to the ware, and has strong polished brass side hinges, no brackets being required.

The Closet can (with propriety) be used as a urinal or slop sink,

The water surface is $7'' \times 5'''$ and for this class of Closet, is as large as it ought to be to secure a good flush

The Closet is self-contained, and being made of stoneware is very suitable for places where there is likely to be rough usage

FLUSH.—When tested by the judges at Leeds, the closet was connected with one of Ducketts' 2-gallon Stoneware Plunger Cisterns, having 13-inch fall pipe The trap has a deeper seal, and basin holds 33% more water than usual, yet the flush is exceptionally strong.

HOLE FOR BOLY WATER AREA FLAN ON TOP OF FLUSHING RIM

O & BRASS BOLTS -

PLAN OF SEAT

PRICES, on Rails at Burnley, CLENCHER No. 1:

Salt-Glazed	15S	od. ea	ich
Amber or Cane inside and outside	185	od. ,	(
Amber or Cane outside, white inside	215.	od. ,	,
White inside and outside	245	od.	ı
Extra, Painted and Varnished 11 pine Seat, and side Hinges of polished brass	78.	6d. ,	1
Polished 4" walnut or mahogany Seat, and do. do. do.	135	. 6d. ,	1

Note -If with plain exterior, prices are 1/- each Closet less than list Weight: About 58 lbs each

In ordering, state whether S, P, or Q Trap is required, also kind of seat if required.

Scale B Excess on Foor.

it off

Leevater area in this does benefit x & ". and an excelent flush is obtained.

North What the State of the dead state and State ampeautification of the closer was can and a more of Duckerts' 2 on by Plances At Cisterns with 14 in mf. 1 piper In a communition is strongly not mineral to 2, wheat results.

NO SHOLDING ON

THE TOOL THE RESERVE

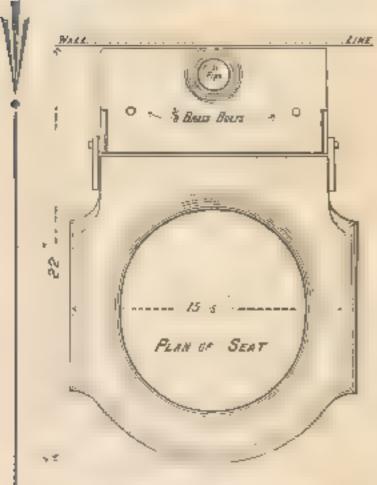
NOS. 1, 2 & 3, "CLENCHERS ' ARE ALL THE SAME PRICE. Clearing Pedestri in Sair pland Wart, Pron Externer...... 0 18 in America would be as do I bozaFi 163, in Archery to Wiste Internet, do. 1 6 Dir. in // miteron a. m. t. d / hare, do. 1 10 0 100. Extra for Anti-syphon Nozzie 0 1 .. for Patent's are for Outlet Connection for P teat. 0 3 6

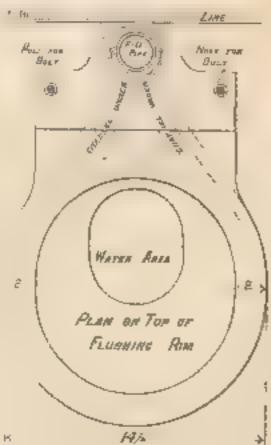
Note: - Weight of with Close, without Sout, while Sail &

In ordering, state whater S, P, r Q Fisp is required, also pattern of wheth r No. 1, 2, or 3, and state had of Seat required, it anyon

CISTERNS. S. C. Louter III





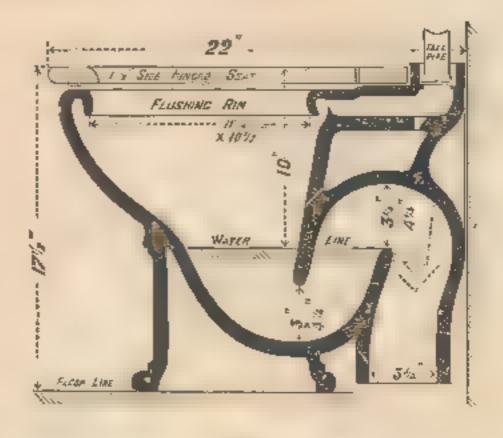


DUCKETTS' PATENT

Awarded Cree Include the the Sandary Ladding, the

Leeds Exhibition, 1897; Southamplen Exhibition, 1809.

Scale 11 Inches to a Foot.



- No. 1. -

The water area in this closet basin is $7'' \times 51''$, and an excellent flush is obtained.

Nors.—When tested by the Judges at Leeds and Southampton, the closet was connected with one of Ducketts' 2-gallon Plunger A1 Cisterns with 1\frac{1}{2} inch fall pipe. This combination is strongly recommended to give best results.

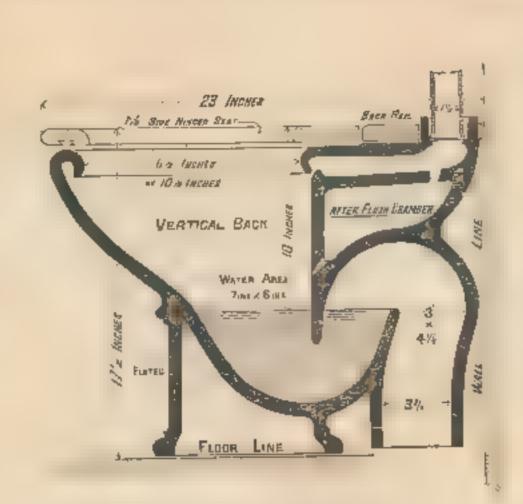
	e6	PRICES	ON I
NO8, 1, 2 & 3, "C	LENCHERS" ARE ALL THE SAME PRICE.	£ s.	d,
Clencher Pedesta	I in Salt-glazed Ware, Plain Exterior	0 18	0 each
Do.	in Amber-enamelled Ware, do	. 1 1	6 ,,
Do.	do. do. Fluted		6 ,,
	in Amber with White Interior, do.		0 ,,
	in White-enamelled Ware, do.	1 10	0
Extra for Anti-syj		0 1	0 ,,
" for Patent	Joint for Outlet Connection for P Trap	. 03	6 ,,
Note.—	Weight of each Closet, without Seat,	about 58lbs.	
In ord	ering, state whether S, P, or Q Trap	is required, also p	attern of
Closet-whether	No. 1, 2, or 3, and state kind of Seat re	quired, if any.	

CISTERNS. See Circular for Flushing Cisterns, which

J. DUCKETT & SON, Ltd., Manu

WASH-DOWN "The Clencher."

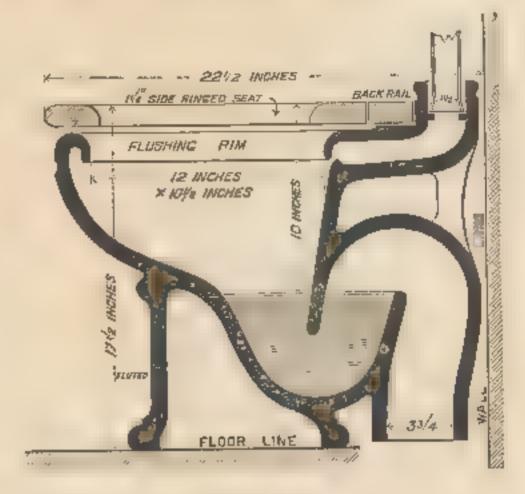
THIS PEDESTAL CLOSET is Self-Contained. The Trap has a two-inch Seal and is of such form and construction as will give the best resilts. The Flushing Rim is on the most approved principle. The two oblique channels connecting it with the fill pipe are important features. The Inlet to Flushing Rim is vertical and strong. No Rubber Cone is required to make joint between flushing inlet and fall pipe. The Seat is hinged to back rail, which is holted to the ware table forming part of closet. Brackets are consequently dispensed with. The Closet is made of Stimeware and is exceptionally strong. It is therefore suitable for places where there is I kery to be rough usage. Outlet of Strap is \(\frac{1}{4}\) inch above closet floor, and joint is very accessible.



No. 2.

This Closet is similar to No. 1, possessing all its advantages, but has a straight back, which is sometimes preferred, and a slightly larger water area in consequence is obtained.

When required an after-flush chamber is provided.



No. 3. —

This Closet is similar to No. 1, but has a much reduced water area measuring $4'' \times 3\frac{1}{4}''$.

An exceptionally strong flush is obtained in this Closet even when a 2-gallon valve cistern is used.

LS AT BURNLEY.

		40.0	d.	
Extra	for Pine Seat 13" thick, Plain, without Hinges	6	0	each
19	do. do. with Butt Hinges	7	0	13
	for Pine Seat 13" thic i, Painted or Staired and Varnished, with Side Hinges of Poushed Brass .	9	0	13
97	Hinged Pine Plap 1" thick, Painted or Stained and Varnished	4	0	91
27	Pol.shed Mahogany Seat, 12" thick with Side Hinges of Polished Brass	15	0	11
	for Polished Walnut Seat 17" thick do. do	16	6	27
.,	for Polished Oak Seat 12" thick do. do	18	0	9.8
17	for Polished Mahogany, Walnut, or Oak Flap, 1" thick, Hinged	6	6	91
13	for Self Lifting Balance Arrangement	7	8	11
ri	TOT DETERMINE PROGREE			

are recommended to be fixed in connection with these Closets.

reducing Olement " The Clerchen

THIS PEDESTAL CLOSET is Sit Ontained. The Trap has a two inch Si and is of such form and constructs a as will give the best results. The Flushing Rim is on the most approved principle. The two oblique care miles connection it with the nell papers. The Flushing Rim is vertical and strong. No Rubber Cone is required to wome cant between firetime indeed and full pipe. The Seat is brouged to back rull, which is bolted to true ware table to an input of cost. Brackets are consequently dispensed with. The Closet is made of Stram are and is exception by strong. It is the retore saitable for places where there is likely to be rough usage. Outlet of Strap is turn as well set there are the set to be subject.



This Close is similar to X. I. presessor; all its solutions of a real rate of the country of the constance of the country larger was marked on consequence as obtained.

When reconcerd an after this in country is provided.

.C .09

This Charactering pt. No. 1, but his a much reduced water area measures of X St.

An experiencity strong flux and claimed in this Clear even when a 2 or our valve code in is used.

S AT BURNLEY.

Extra for the Start I, then there is a thinger.

on P. . See My rank it med or string and Van shed, with Safe Hanges of Polished Brass...

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ASH-DOWN PEDESTAL CLOSETS.

"The CLENCHER" No. 2.



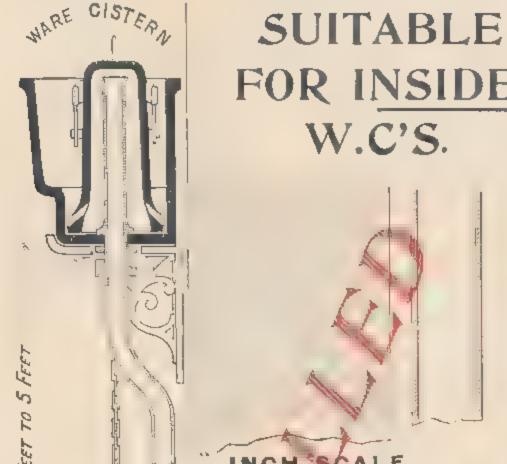
SECTION shewing CLENCHER No. 2 in combination with Ducketts' Patent Plunger Cistern and Disconnecting Trap.



Particulars and Prices of Cisterns on application

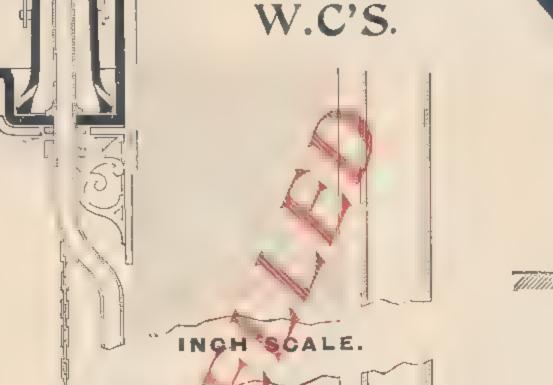
" INCHES

manner



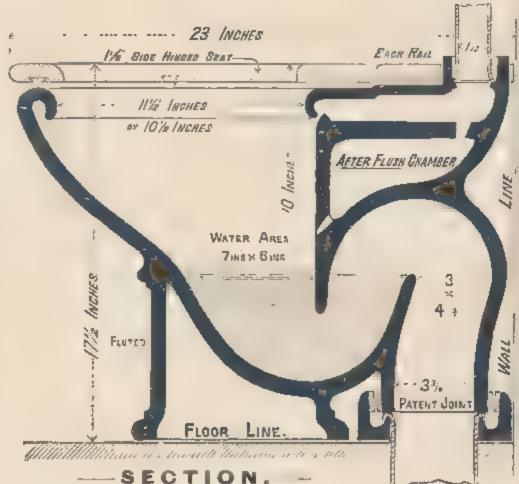
FOR INSIDE INCH SCALE.

SOIL PIPE



SHAFT.

VENTILATING



SCALE INCHES TO A FOOT

- DESCRIPTION. -

The special points in this Closet are the straight back and the special joint for connecting it to a lead soil pipe as shewn on sections, which make a most satisfactory job

Any ordinary plumber can readily make this connection absolutely proof against any escape of sewer gas. This is manifestly of great importance

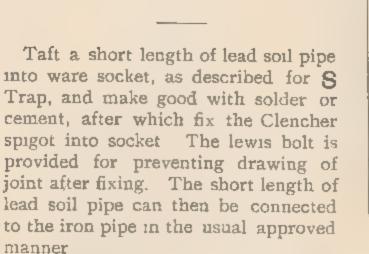
The water area is slightly more than in Clencher No 1

Instructions to Plumbers for fixing Clencher Joint to S Trap.

- r.—Fix lead soil pipe in its position and so that top end of it stands up 21/4 inches above floor — (See Section).
- 2 —Next slide the ware socket over soil pipe until it rests on the floor
- 3 Then taft end of lead pipe into socket, and make good with solder or cement before fixing pedestal
- In fixing pedestal, see that spigot fits properly into socket, and the special jointing material on each of these will complete the joint After this fasten pedestal to the floor with screws in the ordinary manner

PRICES, on Rails at Burnley.

CLENCHER No 2.— Extra on No. 1 2s. od. each Seats for do. Patent Joint for P Trap, including preparation) of Spigot of Closet, and special Socket and Clip 3s. 6d. . Do. do for S Trap (no Clip required) 2s. 6d. ,.



---23 INCHES -----

CLENCHER

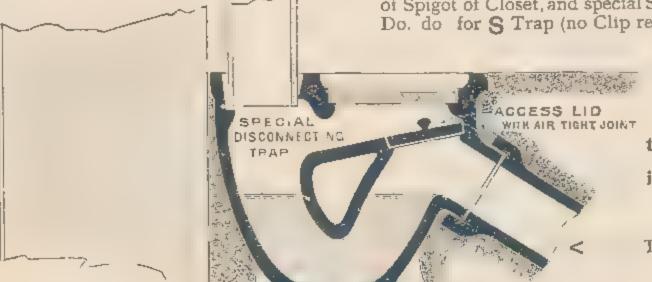
Instructions for making

Joint to P Trap.

Nº 2.

WATER AREA

FLOOR LINE



For advantages, &c., of this Patent Disconnecting Trap. See page 41.

The price of this Trap is to c

DUCKETTS' PATENT

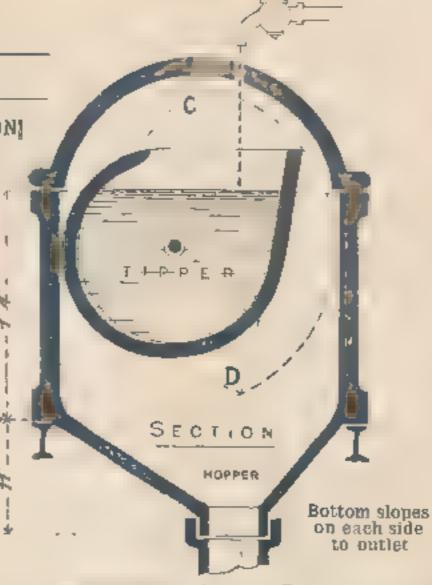
AUTOMATIC.

TO FLUSH 5 OR 10 GALLONS.



10 GALLON

SCALE



DESCRIPTION. The Box Cover and Tipper, are rade - South and Was. Tipper s no ned

with through Ax es, fitted with Gun Metal Bushes, supported on Gun Metal Steps.

The apparatus is guaranteed to work perfectly with a mere dribble of feed water, in fact with a drop by drop supply

The Cover's supplied to prefer tipping in trampered will and to afford protection girnst rost. It case however, there is a formation of ce, the action of the tipper will break it and flush it away

The apparatus being reversible) will suit either right or left hand,

The Materials used a is one of on realized Ware and Gun Meta. I use are practice imperished so that any necessity for repairs is almost impossible to arise.

The action is at all times absolutely reliable.

For Schools, Factories. &c., these F. stong factors can be we applied in thectorway. I itemes as per pages 20 and 21. Large quantities have been sold, and are giving great satisfaction.

ADVANTAGES. EXTRAORDINARY FLUSH. 10 gallons being discharged through a 4-inch pipe in 4 seconds. This is remarkable.

Five flushes of 10 gallons are more sanitary than one flush of 50 gallons as frequent and regular flushing reduces accumulations of filth.

It is very durable; there is nothing likely to get out of order.

No buffer to keep in repair. These Tippers will work even when the box is carelessly set out of level.

PRICES, on Rails at Burnley:

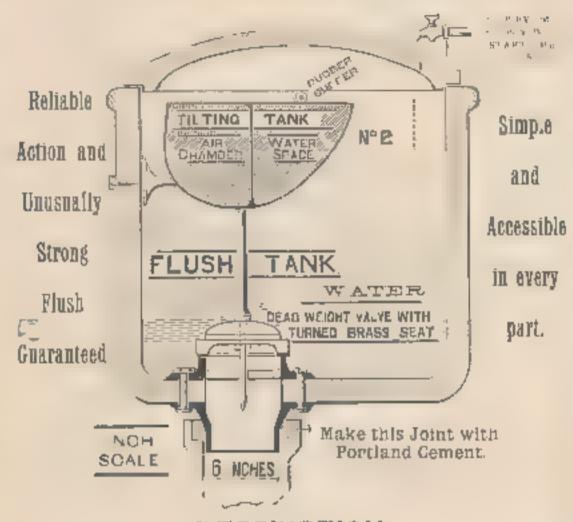
5-gallon Tipper and Box.................£2 10s. 0d. each. 10-gallon do ... £3 0s. 0d. ...

Suitable light Stee. Bearers are supplied for supporting these a lashing Tanks. Price, I - per lineal foot a less and are strong a recomme did is they are said than wood linters which frequents rot and all areas. The length between walls if they are required.

FLUSHING TANKS.

No. 2. AUTOMATIC.

OF ANY REQUIRED CAPACITY.



DESCRIPTION.

THE TANKS are usually made of Salt-G azed Ware of various sizes. They can however be supplied in Galvanized Iron.

THE TILTING TANK is made of Copper and fitted up with Brass Pivots Steps and Rubber Buffer. The Air Chamber ensures its efficient working even when the Cistern is carelessly fixed or set out of level.

THE COVER 13 OF 101 and void proceed from freezing. For very exposed positions a covering of hair felting is recommended as further protection.

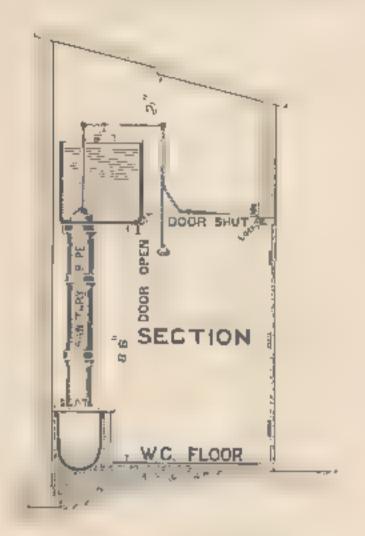
THE FEED WATER enters the Flushing Tank and over flows into the water space of the Tilting Tank, the tilting of which afts the valve and the water discharges with great force through the Closet or the Drain as the case may be. A portion is retained in the tilting tank a short time until it escapes through the small aperture provided by the action of pass of the ask of the control of the contro

The first and the promote a cambe man a great reby increasing the size of outlet valve

The fittings of this Tank can be made to be built into brickwork for an underground flushing tank of any capacity

No. 3. HAND FLUSH.

OF ANY REQUIRED CAPACITY. -



¥ INCH SCALE.

This Flushing Tank is made of Salt-Glazed Ware or Galvanized Iron. The dead-weight valve is fitted in with tunned brass seating and a soft rubber ring, thus making a water-tight joint.

On the valve of cistern being opened to whole contents are discharged, and the range of Latrines flushed and reichaged with coest water

In San-Coursed Ware or

Galvanused Iron

PRICES, on Rails at Burnley:

 20-gallon Tank, fit up complete as shewn on Llustrations No. 2 and No. 3
 3 IO 0

 35-gallon Tank,
 ...
 ...
 ...
 4 O 0

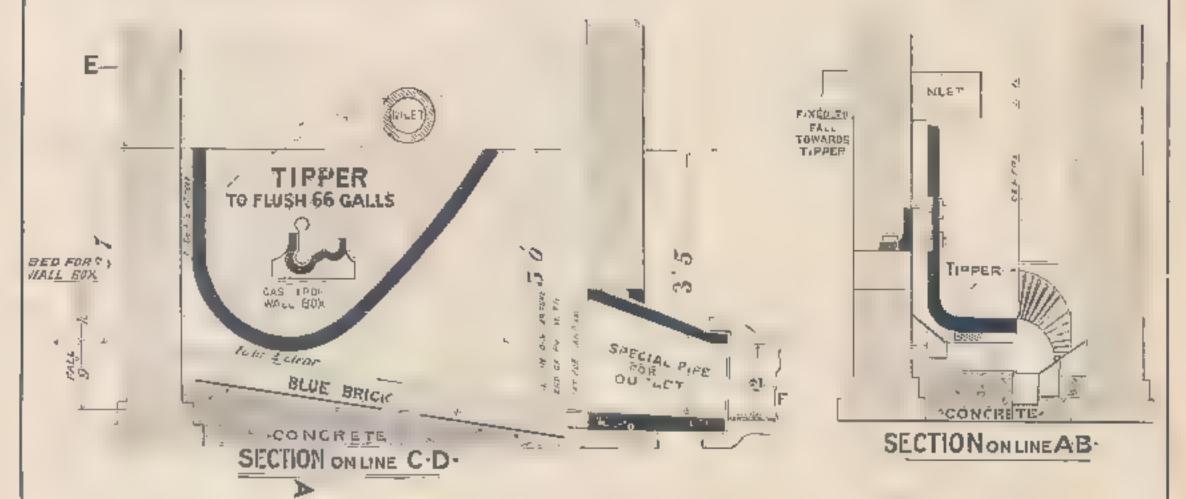
 50-gallon Tank,
 ...
 ...
 ...
 ...
 4 IO 0

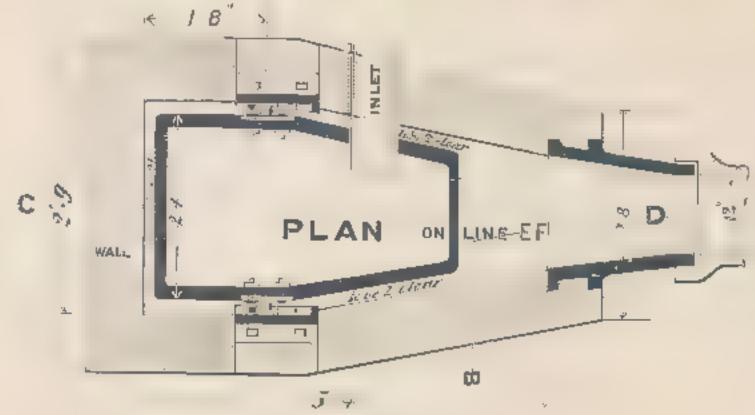
Note. - If required, thoroughly efficient Sypnon Flushing Tanks can be supplied at above prices

DUCKETTS' Automatic Tipper

OF VARIOUS SIZES.

66 GALLON TIPPER.





- HALF INCH SCALE.

INSTRUCTIONS FOR FIXING TIPPERS OF 33 TO 100 GALLONS CAPACITY.

Form the invert as shewn with Staffordshire blue bracks, and sloping sides with splayed bricks

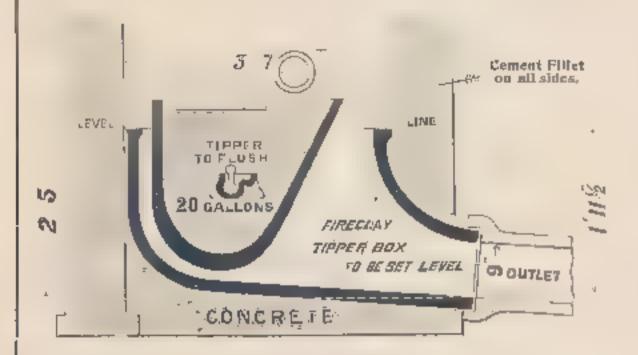
Place the bearings, which must be securely bolted down, in the position shewn on diagram, then fix the tipper, which must have a 1½-in. to 2-in. clear space underneath and around it.

Covers and to be an one, by partiaser as they require to vary in a rengt according to the size and position of it shing chain or. When there is but little weight to pass over 6 no rough flags would suffice. In some cases wrought from girders would be used.

rs, for Flushing Sewers, &c.,

TO 100 GALLONS FLUSH.

20 GALLON TIPPER AND BOX.



SECTION. -

Large size Tilting Vessels are admir ably adapted for flushing sewers. They are volve of the repeat, also no attention a drave none or anish, at a like y toget out of order. The water supply may come from the town's main at a mere drabble, as even a drop by drop supply will work them

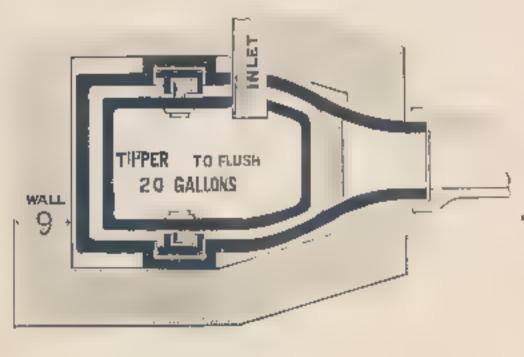
Surface water from the roofs of weaving sneds, dirty water from streets, houses, &c.,

may thus be utilized for flushing

Tippers up to and including 33 gallons capacity, are made of salt-glazed ware, rest on metal bearings, and are fitted in a most substantial manner in every respect. Tippers over 33 gallons capacity are made of well seasoned pitch pine.

J. Dickett & Son, Ltd., recommend that the better of these large types to kept will covered, and periodically examined for the purpose of removing any accumulation which might interfere with the sensitive working of tippers. An annual examination may be found sufficient

- HALF INCH SCALE. --



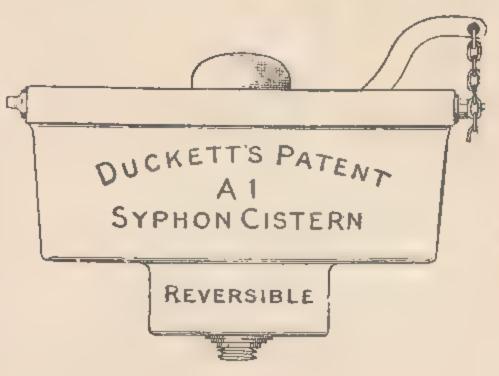
PLAN, -

PRICES:

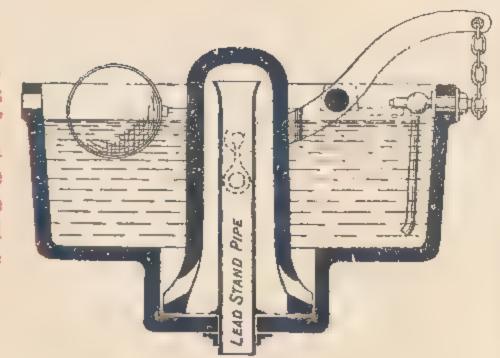
PRICES:			
For 3 Gallon Frush (as per page 8), consisting of tipper, tipper box, dish- stone, and grate	1	2	а. О
For 5-Gallon Finsh (as per page 14), to saying of typer, the box cash stone, and grate.	1	5	0
For 10-Gallon Flush, similar in prin- ciple to the 20 gallon illustrated above	3	0	0
For 20 Gallon Flush, including tapper and tipper box, fit up complete (except cover and trickwork) as per drawing	5	0	0
For 33-Gallon Tipper, having strong pivots with bearings bolted to wall, special pipe for outlet, on the same principle as the 66-gallon illustrated			0
For 100 Gallon Tipper, do. do	6		0

- DUCKETTS'-

A.1. Stoneware Syphon Plunger Gistern



At the Leeds Exhibition, 1897, this Cistern was used in flushing Ducketts' "CLENCHER" Wash-down Closet when tested by the Judges appointed by the Sanitary Institute, and for which the Bronze Medal was awarded.



Description.

HIS CISTERN has a very powerful flush (even with 2 gallons of water) and is more silent in action than most Plunger Cisterns. It is made of highly-glazed enamelled stoneware, and all fittings are of the best quality. The stand pipe is of lead, fixed a little above top of cistern to prevent secret waste. The lever is of strong cast iron, and furnished with brass chain and ivory pull. Plunger is of enamelled stoneware. Ball Valve is of best quality.

The flush starts with a pull-and-let-go. On descent of plunger the water rushes through the large circular openings in plunger with great force. With only 3-feet of 11/2-in. fall pipe it will flush 2 gallons in 3 seconds or 3 gallons in 41/2 seconds.

NOTE. J. Duckett & Son, Ltd., recommend their Lead-lined Cistern for outside w.c.'s where exposed to frost.



- 1. Perorial and a 11 hash with comparative silence.
- 2. Simple in construction and durable,
- 3. Next in a pearance and cleanly. No rusting in working parts.

Prices, at Burnley: —

2 GALLS. 2½ GALLS. 3 GALLS.

Cistern in Amber Enamelled Stoneware, with Ball Cock, Overflow, 11/2"). Brass Union, Lever, Chain and Pull complete

Optional Extras :—

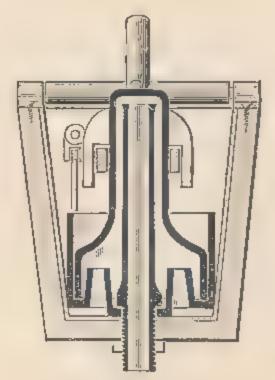
Ornamental Cast Iron Brackets... . 1 9 per pair.

When Cistern is White Enamelled...... 2 0 each.

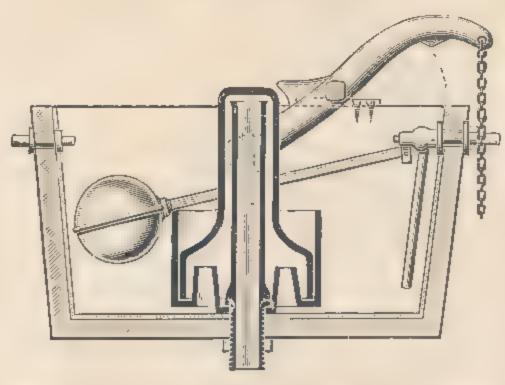
NOTE.—A 11/2" Union will be sent unless otherwise ordered.

Lead-Lined Syphon Plunger Gistern.

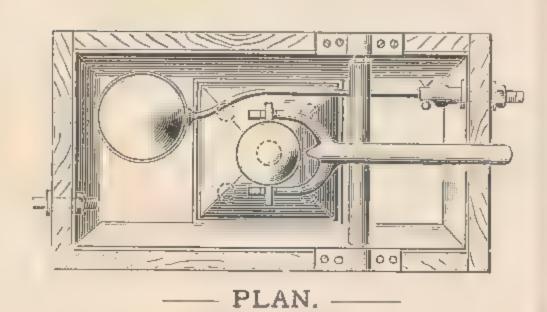
MEETS REQUIREMENTS OF THE PRINCIPAL WATER COMPANIES.



CROSS SECTION.



LONGITUDINAL SECTION.



Description —

This Cistern is constructed in a novel manner, which ensures a most satisf ctory flush.

The Casing is of 7ths red deal, well dovetailed, and lined with 5-lbs. lead.

The Stand Pipe is fixed a little above top of cistern to prevent secret waste.

Ball Valve is of best quality.

Lever is furnished with chain and ivory pull, and axles have brass ferrules

Flush starts with a pull-and-let go

Advantages:-

- 1. Powerful Flush with little noise.
- 2. Simplicity in construction.
- 3. Plunger can be removed without removing axle.
- 4. Outlet being in centre, cistern will suit either right or left hand.

Prices, at Burnley: -

2 GALLS 21 GALLS. 3 GALLS.

Cistern, with painted cast iron Well, Stand Pipe, Plunger and Lever, and a good Ball Cock, Overflow, 12 Brass Union, Chain and Ivory Pull complete...

17s. 6d. 19s. 0d. 20s. 6d.

Note.—A 1½" Union will be sent unless otherwise ordered.

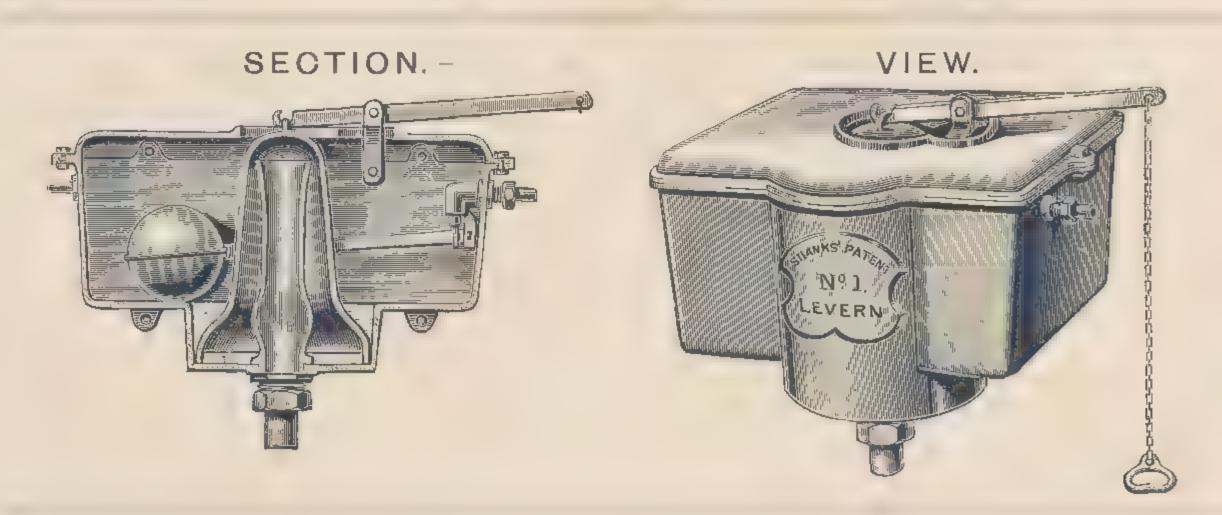
PATENT WASTE-PREVENTING W.C. CISTERN.

The "LEVERN"

Valveless Syphon Cistern.

This Cistern is constructed in conformity with the regulations of the best Water Companies in the kingdom. The parts are few, simple, and strong, and it is next to impossible for it to get out of order.

The Patented Syphon Pipe, with bulge at foot, renders the discharge from the Cistern so rapid that the Cistern will empty in nearly half the time of ordinary patterns. The top of the Syphon Pipe is just above the level of edge of Cistern, so that secret overflowing is impossible. It is more silent in action than most Syphon Cisterns.



May be made left-handed if specially ordered, at no extra cost.

SHANKS' GLASS ENAMEL renders the inside of Cistern as cleanly and durable as a piece of Porcelain. Does not chip or scale off.

The Cistern is made vertical at back, with Lugs for screwing to wall, and so saving the cost of brackets.

DDICEC		CAPACITY	
PRICES, at Burnley:	2 GALLS	2% GALLS	3 GALLS
"Levern" Cistern & Cover in cast iron, painted, with ordinary Ball Cock	16s. 0d	17s. 3d.	18s. 6d.
Glass Enamelling inside of Cistern and all over Dome, extra	4s. 0d.	4s. 9d.	5s. 6d.
Glass Enamelling Dome only, extra	1s. 2d.		

Fullway Special Ball Valve, extra 1s. 6d. Dome and Syphon Pipe made in Spelter, extra 4s. 0d.

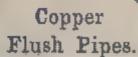
DUCKETTS' URINALS

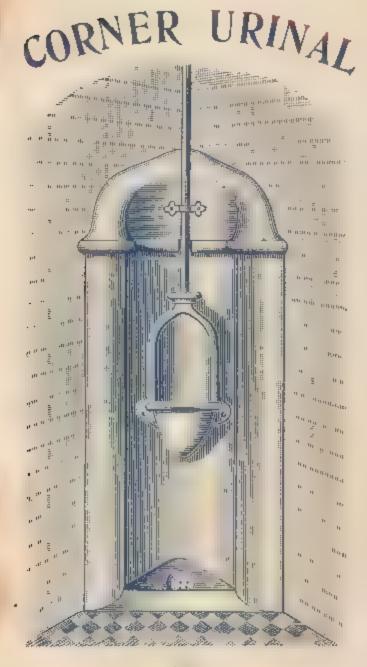
-PATENTED-

CHEAP, SANITARY, HANDSOME, EASILY FIXED.

AWARDED THE PINZE MEDAL OF THE SANITARY INSTITUTE,

BIRMINGHAM EXHIBITION, 1898.





PLAN

THESE URINALS are made of highly glazed Enamelled ware, in two widths, viz:—A. 23 inches from centre, and B. 26 inches centre to centre. Smaller sizes, 18 inches from centre to centre, can be supplied when required. Corner Urinal is 30 inches on face.

Pillars and Caps are undercut for cement key.

Vertical joints of caps are behind flush pipes.

Each Range is erected, fitted, and numbered before leaving the works, so that the parts can afterwards be readily and accurately put together.

NOTE,—End Pillars and Caps are prepared to be built into wall unless ordered otherwise.

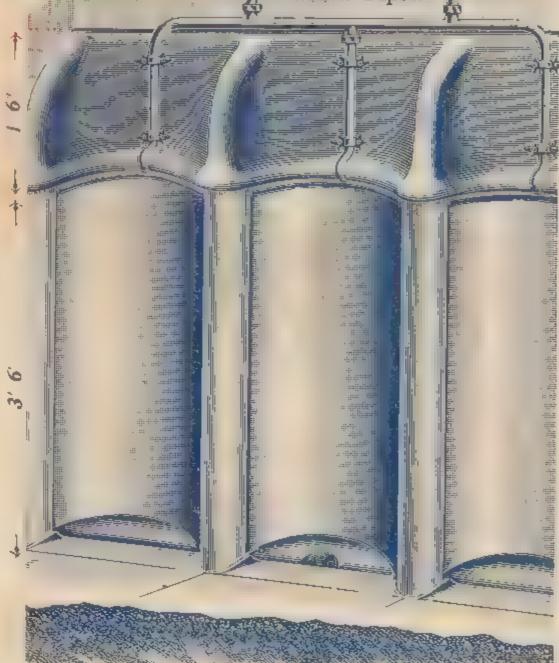
The basin shewn in combination with Corner Urinal is also applicable to stalls in ranges. It is secured with brass bolts.

Basin and back of Urinal below it are cleansed at each flush.

The Blocks which form the channel and sioping tread should be bedded in cement concrete, so as to form a good foundation for the Urinals.

Being highly glazed, these Urinals cannot be written upon and defaced.

FIXING.—Experienced men are sent out when required.



PLAN OF STALLS, "B" SIZE.

White:

per stall.

£4 19 0

0 0

£6

Approx.mate

Weight.

per stall.

2 cwts. 3 grs.

4 cwts 1 qr.

2 cwts 3 grs

Prices	on	Rails	at	Burnley	:
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SPECIAL DESIGNS AND QUOTATIONS GIVEN FOR HEXAGONAL AND OTHER URINALS

Flushing Pipes.

Automatic Flushing Cisterns.

Amber

					each.		
Amber enamelled ware.	One gallon	capacity	***	£1	13	0	
White do.	ďo.	do.	1 + +	± 2	4	0	
Extra for each additional							
Iron Brackets, painted 1/	9 per pair.	Galvanis	sed 2	/9 ne	er re	ir.	

Enamelled Ware | Enamelled Ware

J. DUCKETT & SON, LTD., Manufacturers of Sanitary Ware, BURNLEY, LANCASHIRE.

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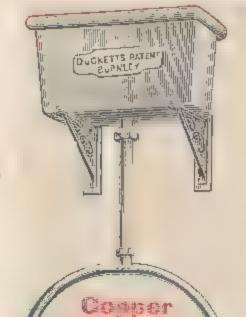


EASILY

6

60

FIXED

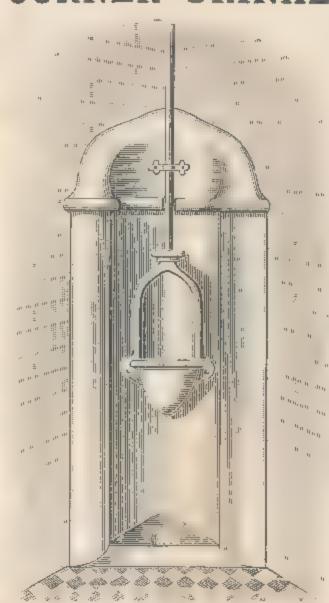


DUCKETTS'== URINALS.



PROTECTED.

CORNER URINAL



These URINALS are made of highly-glazed ware, in two widths, viz.:—A. 23 inches from centre to centre, and B. 26 inches from centre to centre. Corner Urinal is 30 inches on face.

Pillars and Caps are undercut for cement key.

Vertical joints of caps are behind flush pipes.

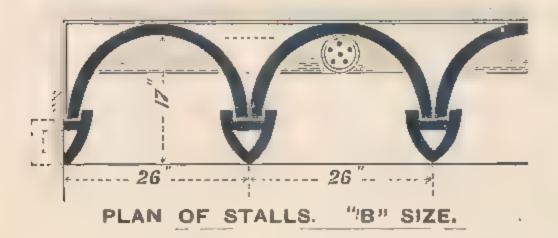
Each range is erected, fitted, and numbered before leaving the works, so that the parts can afterwards be readily and accurately put together. Thoroughly experienced workmen or masons, accustomed to setting ashlar, should be employed in fixing these Urinals.

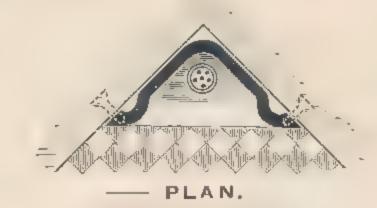
The basin shewn in combination with Corner Urinal is also applicable to stalls in ranges. It is secured with brass bolts.

Basin and back of Urinal under it are cleansed at each flush.

The blocks which form the channel and sloping tread should be bedded in cement concrete, so as to form a good foundation for the Urinals.

Being highly glazed, these Urinals cannot be written upon and defaced





NOTE. End Pillars and Caps are prepared to be built into wall, unless otherwise ordered.

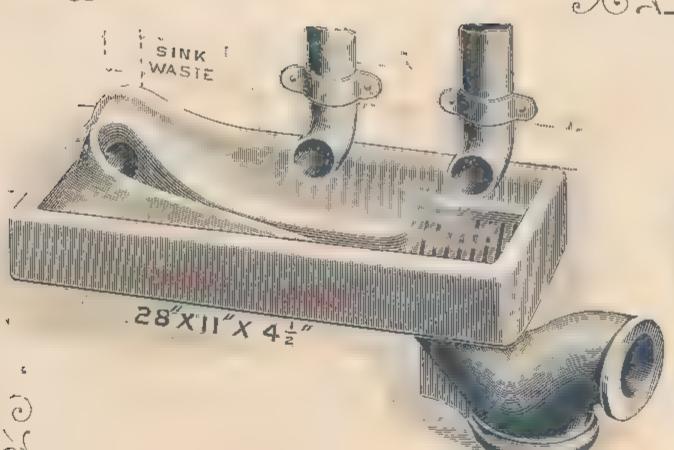
Prices on Rails at Burnley:

	Salt-Glazed Ware.	Amber Enamelled Ware.	White Enamelled Ware.	Approximate Weight
"A" size, per stall	£2 0 0	£2 8 0	£3 15 0	2 cwts. 3 qrs.
"B" size, per stall	£2 10 0	£3 0 0	£4 10 0	4 cwts. 1 qr.
CORNER URINAL without basin	£2 15 0	£3 5 0	£4 15 0	
BASIN only, with brass bolts	£0 10 0	£0 12 0	£0 15 0	* * * * * * * * *

Suitable Automatic Cistern and Brackets with Flush Pipes, &c., as illustrated, for 3 stalls, £4 os. od.

Do. do. for other ranges at reasonable prices.





DUCKETTS'

- PATENT SELF-CLEANSING

Channel Gulley

PREVENTS
SPLASHING.
IS NEAT AND
SANITARY.
IN MODEL
LAWS
COLAL
GOVINT.

As supplied to For Majosty's Covernment, Corporations, Railway and Companies, Ediphnies, Ediphnies, Infirmaries, etc.

Description

The BLOCK measures $28'' \times 11'' \times 4\frac{1}{2}''$, and is made of Amber Enamelled Stoneware. It has a special Channel as shewn, also an inlet large enough to receive a 2'' earthenware waste pipe. Two sloping malleable iron grates are firmly hinged to it, $\frac{5}{8}''$ apart at the points. The grates so fixed render the trap accessible and offer less resistance to the flow of the water than grates set level.

The TRAP is very small, holding only one pint of water, and it can be turned in any direction to suit drain connection.

The GULLEY is rendered self-cleansing by the following combination, viz:—1.—Reduced water space in trap. 2.—Two sloping grates in lieu of one set leve!. 3.—The Special Channel.

This arrangement produces much more than an ordinary flush, and prevents accumulations.

Medical Officers of Health, and Sanitary Engineers, strongly recommend this special Self-Cleansing Trap in preference to the insanitary deep trap, which provides storage for a large quantity of filth.

Advantages

No sewer gas can enter the dwelling through the sink waste.

No stench can arise from trap, as no lodgment of filth occurs.

No saturation of surrounding soil or adjoining foundations by slop-water. This is prevented by the rim under dishstone fitting into the socketted top of trap.

No splashing or overflow, as this is prevented

by the curved overhanging part at inlet.

No annoyance or loss through grates being removed, as they are securely hinged and leaded-in, and still allow of ready access to trap.

The extra flush cleanses the house drain.

The shield which covers sink waste pipe protects it from wilful or accidental injury.

Grates being of malleable iron are very durable.

Prices:

GULLEY BLOCK, as per illustration, including Malleable Iron Hinged Grates, on rails at Burnley, 7s. 6d. each. Trap for ditto, 2s. 6d. each. 1s. 0d. complete When Grates are Galvanized 1s. 0d. extra.

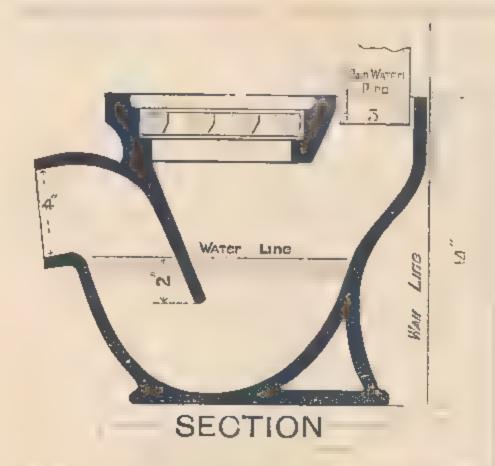
IN ORDERING state whether right or left hand arrangement is required. Illustration shews right hand.

WEIGHT of complete Gulley about 90 lbs., or 25 to a ton.

NOTE. This Gulley works admirably in connection with Ducketts' Patent Slop-Water Closet, Arrangement B.

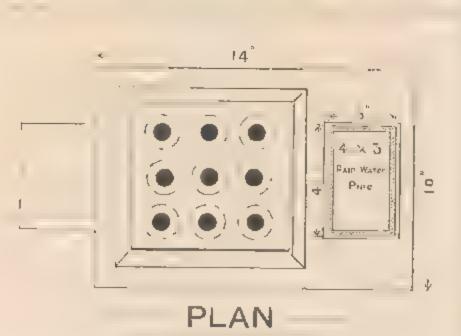
DUCKETTS' Improved Rain-Water Gulley.

REGISTERED No. 309067.



This form has been designed to supply a simple, effective Rain-Water Gulley.

It is made of well-glazed Stoneware, and with inlets of various sizes to meet requirements



Advantages:

- 2. Prevents Splashing.
- 2. Foundations kept Dry.
- 3. Deep Water Seal.
- 4. Self-Cleansing.
- 5. Sanitary.
- . No Shoe required.

These Gulleys are kept in stock with Inlets for Rain-Water Pipes of the following sizes :-

	RECTANGULA	R	CIRCULAR
3" × 2"	4" × 3"	5" × 3½"	2½", 3", 3½", and 4" diameter.
Other	sizes made t	o order,	Other sizes made to order

NOTE. Sufficient play is provided in pipe inlet to allow of bottom length of rain-water pipe being easily socketted into upper length

PRICES, on Rails at Burnley:-

Gulley, with	h strong	ware g	grid					4 5 +	s. 5	0	each.
Extra if fitte	ed with	Patent	Hinged	Iron	Grate,	painted			1	0	5 >
> 1	7.5		2 2		12	galvaniz	ed		2	0	22

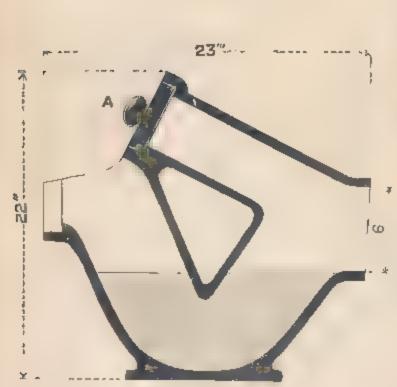
DUCKETS

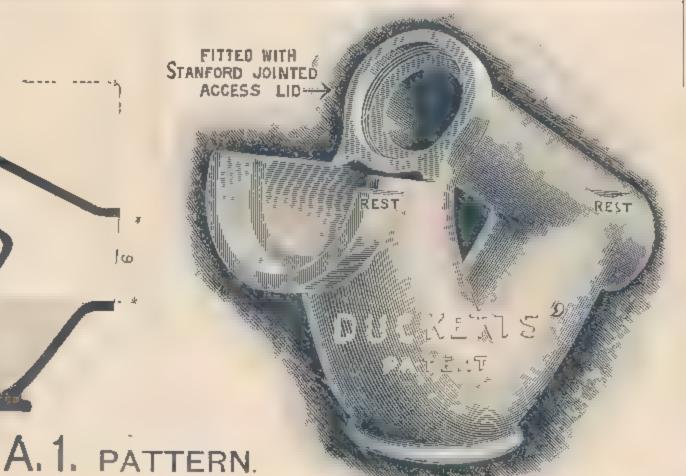
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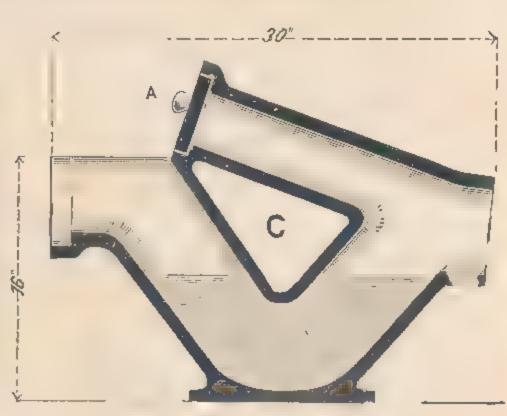
Intercepting Traps

WITH RESTS FOR SPIRIT LEVEL.

THE ONLY SAFE INTERCEPTOR ON THE MARKET!







C, PATTED

Part Marin Marin Armad at the Health Experience Liverpoof of

ARCHITECTS, SURVEYORS, SANITARY INSPECTORS, &c., should insist on this Interceptor being used, as it is necessary to ensure the proper trapping of Drains.

The Local Government Board approve of the use of Intercepting Traps, as will be seen from the following Extract from the "Surveyor," October 25th, 1894:-

"Those who refuse to believe in the utility of the Intercepting Trap have certainly not the support, moral or otherwise, of the Local Government Board, as certain members of the Hornsey Local Board have now discovered in a somewhat unflattering manner. We need scarcely remind our readers of the very able report which was drawn up by Mr. DE COURCY MEADE on this subject, and presented to the Board. In spite of this report, which was warmly supported by the most enlightened section of the Board, a majority, led by the building interest, declared against the use of the Intercepting Trap. The Local Government Board have now declared against them in unmistakable terms, refusing to sanction the omission from the bye-laws of a compulsory clause for the provision of Intercepting Traps, and unkindest cut of all stating that the reasons arrived at by the majority are fallacious and their experience with reference to the trap quite opposite to that in all other parts of the country. The discomfited and stultified majority are to be congratulated on the unenviable distinction they have secured for their Board, and Mr. Meade on the complete justification his views have received."

PRICES ON APPLICATION. -

CAUTION.

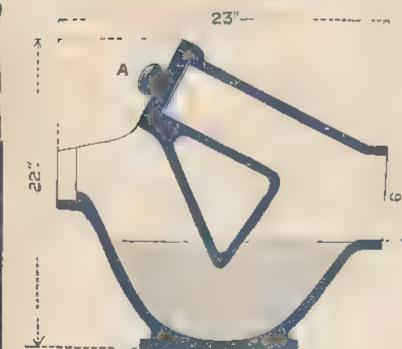
It having co. e to our knowledge that Intercepting Traps with Rest for Spirit Level are being made and so discerns without our license, we give notice that it is our intention to take legal proceed. In the last of the legal proceed. In the last of the legal proceed. In the last of the last of

... For Joseph Company of the second of the



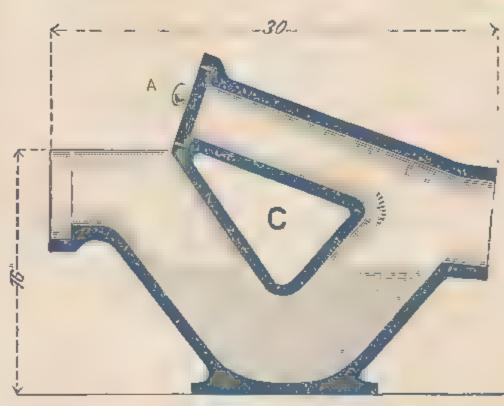
DUCKETTS' LEVEL REST

INTERCEPTORS.



Pattern A.1.

Awarded Che Bronze Medal of Che Sanitary Institute, Liverpool Exhibition, 1894.



Pattern C.

The utility of Ducketts' Level Rests for ensuring accuracy in the fixing of Intercepting Traps in manholes has now been fully recognised by sanitary specialists and users of traps.

Architects, Surveyors, and Sanitary Inspectors prefer Interceptors with Level Rests to any others, and J. Duckett & Son, Ltd., confidently recommend their Interceptors for general adoption.

The Lord Government Board approve of the use of Intercepting Traps, as will be seen from the "Surveyor," October 25th, 1894:—

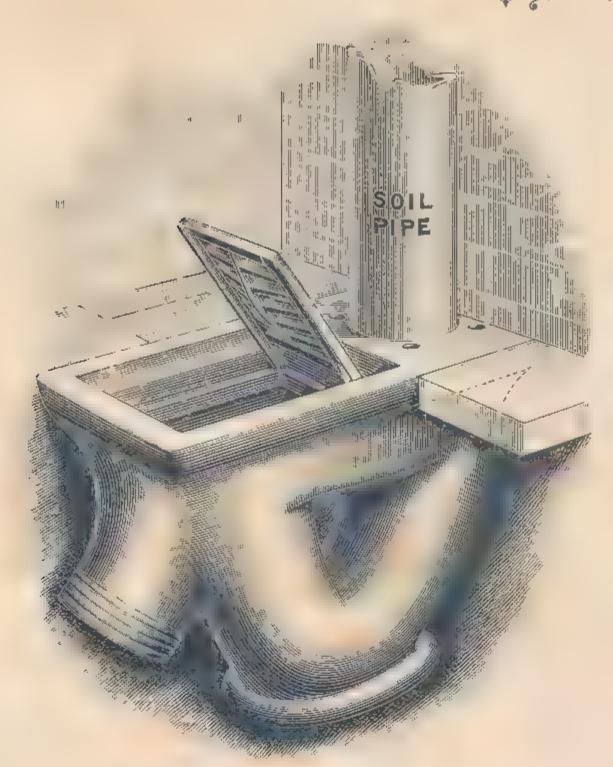
Those who refuse to believe in the utility of the Intercepting Trap have certainly not the support, moral or otherwise, of the Local Government Board, as certain members of the Hornsey Local Board have now discovered in a somewhat unflattering manner. We need scarcely remind our readers of the very able report which was drawn up by Mr. DE Courcy Meade on this subject, and presented to the Board. In spite of this report, which was warmly supported by the most enlightened section of the Board, a majority, led by the building interest, declared against the use of the Intercepting Trap. The Local Government Board have now declared against them in unmistakable terms, refusing to sanction the omission from the bye-laws of a compulsory clause for the provision of Intercepting Traps, and—unkindest cut of all—stating that the reasons arrived at by the majority are fallacious, and their experience with reference to the trap quite opposite to that in all other parts of the country. The discomfited and stultified majority are to be congratulated on the unenviable distinction they have secured for their Board, and Mr. Meade on the complete justification his views have received."

No Extra Charge is made for Duckett's Intercepting Traps bearing this useful improvement.

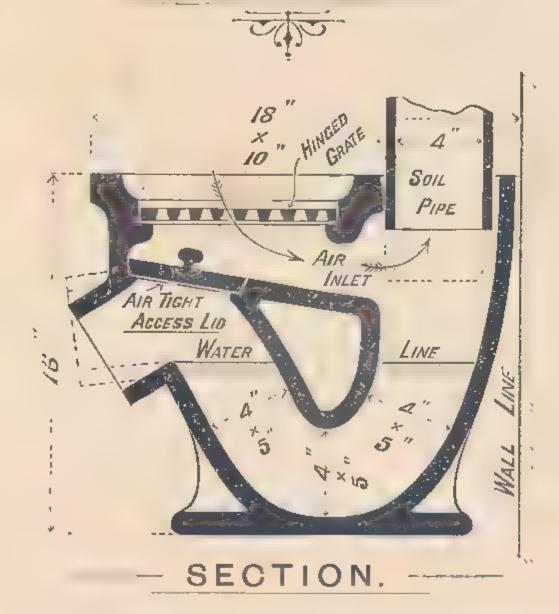
PRICES AND PARTICULARS ON APPLICATION.

Be sure you obtain DUCKETTS' LEVEL REST INTERCEPTORS as their good qualities are now firmly established.

J. DUCKETT & SON, LTD., Manufacturers of Sanitary Ware, BURNLEY, Lancashire.



SAFE AND . . . RELIABLE.



DUCKETTS'

SPECIAL

Disconnecting Trap

-Description.

THIS TRAP is made of highly-glazed Stoneware, and combines important advantages not possessed by other Disconnecting Traps

By its use the soil pipe is disconnected from the drain, and the conduit between grate and foot of soil pipe provides for the efficient ventilation of the soil pipe.

The dished top has a Patent Hinged Grate secured to it, and acts not only as an air inlet, but also as an inlet for surface water.

The Trap has a deep seal. A movable lid with special air-tight joint gives ready access to trap and to drain.

-Advantages.

- 1. Drain well Trapped by Deep Seal.
- 2. Access to Drain and to Trap provided.
- 3. Soil pipe thoroughly ventilated.
- 4. Syphonage of Closet Trap prevented.
- 5. It acts as Yard Gulley.

Price, on Rails at Burnley = = = 10s. 6d. each.

WEIGHT, 66 lbs. each complete.

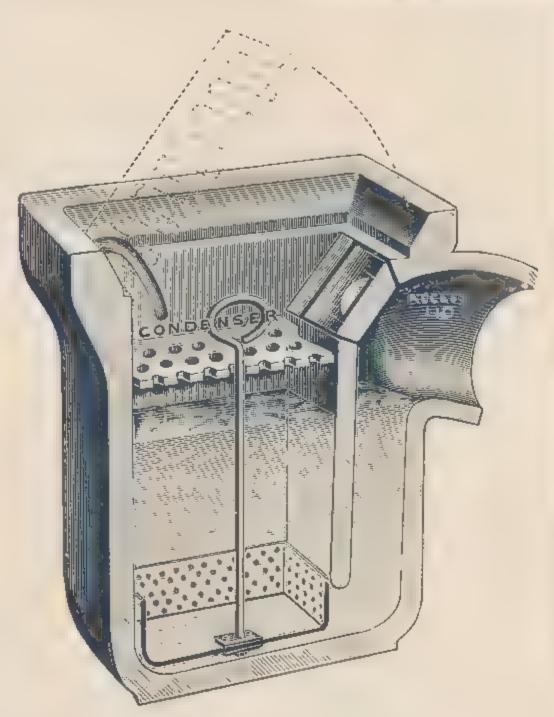
- DUCKETTS' =

PATENT

Grease Interceptor.

A REAL INTERCEPTOR.

AN EFFECTIVE TRAP.



- SECTIONAL PERSPECTIVE

— Description. —

This Patent Grease Interceptor consists of a stoneware gulley with a specially deep seal. A perforated mud box of galvanized iron is fixed below the water line to intercept solid matter and so prevent its passage into the drain. This box is provided with a handle for easy removal after surface grating is raised.

Between the top water level and the underside of the surface grating a loose perforated tray or condenser of galvanized iron is placed, which is supported on lugs. The object of this tray is to cool the hot greasy water as it is discharged into the gulley, and by so doing to congeal the grease, whereby a large percentage of it is intercepted and so prevented from passing forward to the drain or sewer.

The holes in the tray are not plumb under those of the upper grating, so that the greasy water is obstructed in its fall.

The handle of the mud box extends upward through the perforated tray, so that both mud box and tray may be removed by one lift for cleaning purposes.

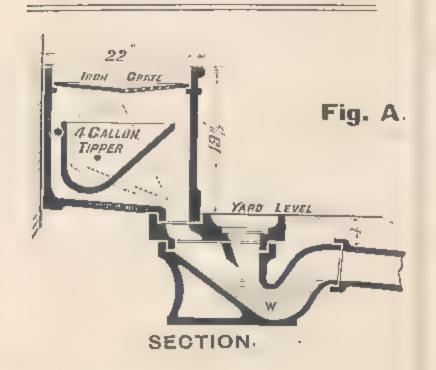
An access lid with "Stanford" joint is provided for inspection purposes.

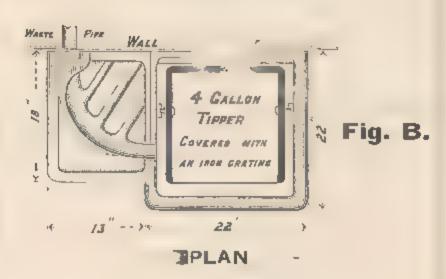
PRICE, on Rails at Burnley:-

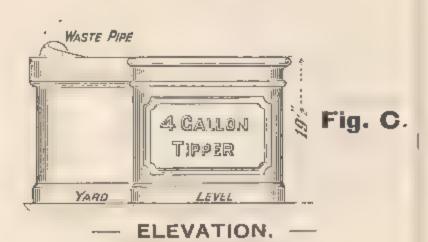
Weight 109 lbs. each, complete.

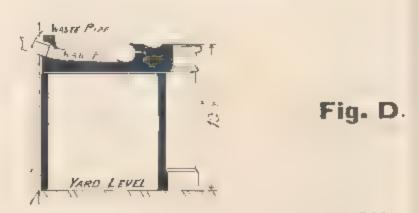
Larger sizes at proportionate prices.

Arrangement No. 1.









SECTION OF CHANNELLED DISH.

DUCKETTS'

- PATENT AUTOMATIC -

GREASE COLLECTOR & FLUSHER

SANITARY SELF-CLEANSING-ACCESSIBLE.

DESCRIPTION. These appliances have been designed for efficiency, and require little attention. Greasy water, before entering the tipper, flows along an open channel, and is cooled by exposure to the air. When nearly full, the tipper automatically tilts, discharging its contents (including congealed grease) through the drain. The shields in Figs. B and G are formed to prevent splashing.

Arrangement No. 1 has a 4-gallon tipper in panelled Box, top of which is 19½-in. above yard level as shewn on Fig. A. The channelled dish (Fig. B) may be dispensed with, and sink water discharged direct upon iron grate if preferred.

Arrangement No. 2 has a 4-gallon tipper in panelled Box, top of which is 12-in. above yard level as shewn on Fig. E.

Arrangement No. 3 has a 3-gallon tipper and Box with channelled cover fixed at yard level, (see Figs. F and G). Margin tiles 5-in. × 2-in. are supplied to facilitate access to tipper. Trap shewn on Fig. E may be used if desired.

NOTE.—The apparatus may be used in connection with Ducketts' Slop-Water Closets, Arrangements A and A1.

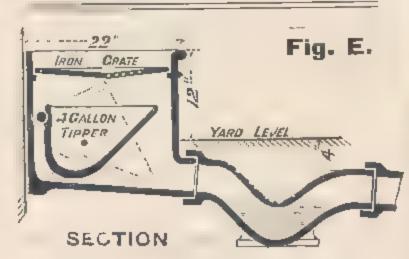
PRICES on Rails at Burnley in Salt-Glazed Ware:

Arrangement No. 2.—Including 4 gallon Tipper and Box, with strong dished iron grate, channelled dish and support, and 4-in. syphon trap, as shewn on Fig. E.

Arrangement No. 3. -Including 3-gallon Tipper and Box, channelled dish fitted with two sloping grates and six 5-in. x 2-in. margin tiles, as shewn on Figs. F and G

Extra for Tipper and Box in Amber Enamelled Ware 20% on above prices.

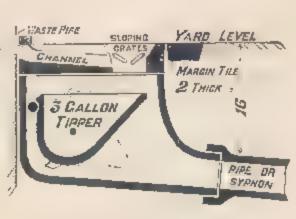
Arrangement No. 2.



The Channelled Dish shown in Figs. B, C, and D, accompanies this arrangement when required

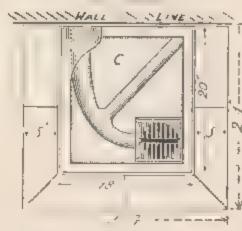
Arrangement No. 3.

Fig. F.



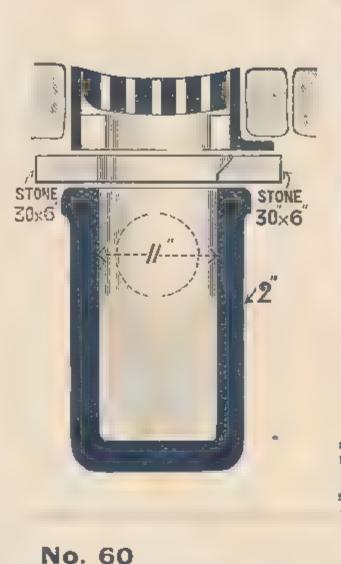
- SECTION. -

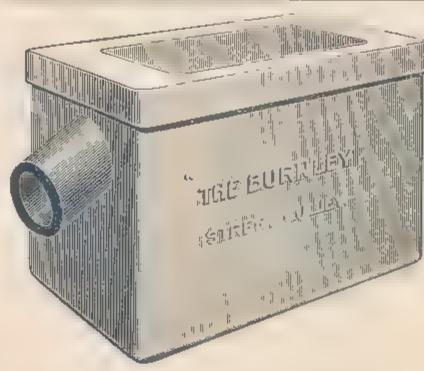
Fig. G.



PLAN

DUCKETTS' Street Gulleys.

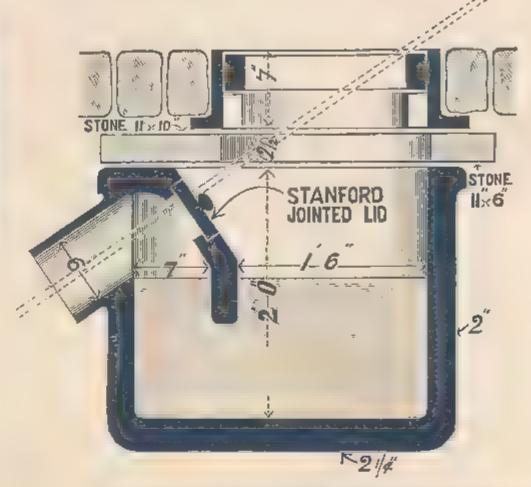




"THE BURNLEY" STREET GULLEY REGISTERED NO 306527.

This Gulley is strong, safe, easily cleaned, and has a broad base. It can therefore be strongly recommended as an efficient Gulley.

It is made in various sizes, and if required can be supplied with deeper seal than shewn on drawing.



namely :--

and 65

panted Socket

inside

Bottoms of these Gulleys

are made three different ways,

A-As Der Sections No 15a

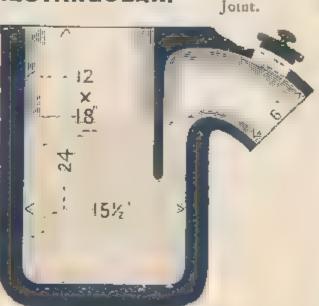
B Bottom with Statfor I-

Bottom with deep Socket firm y cemented to body. Joint prepared as per sketch.
B and C are better glazed

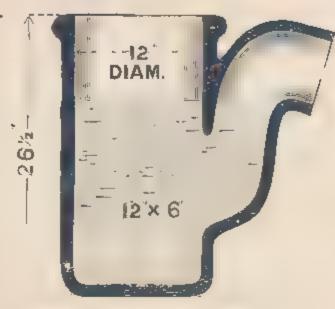
STONE

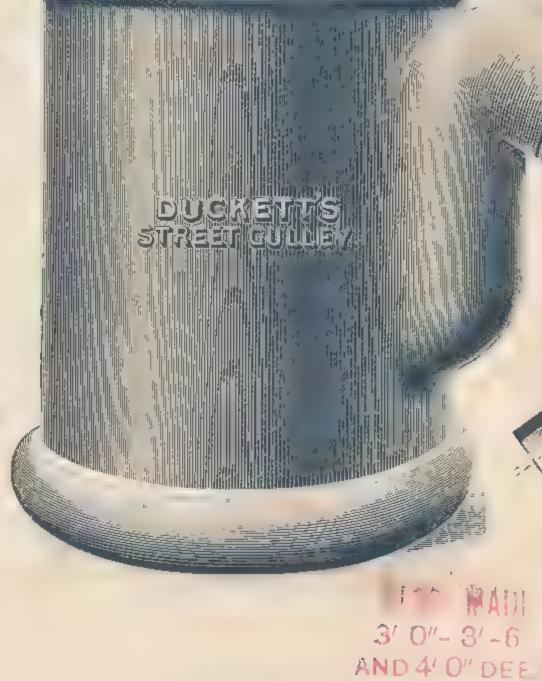
RECTANGULAR.

Stanford



No. 15a. CIRCULAR.





STANFORD JOINTED ----18 diam -

PRICES on Rails at Burnley:

No. 15a, 12-in. \times 6-in. 5₁- ,,

"The Burnley" (1-ft. 6-in. deep... 15,-Street Gulley | Weight 20 24 each

We sht 30 24 each Weight 4c 21 each

No. 60 each. No. 62 17/- ,,

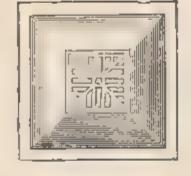
2-ft. o-in. deep...17,6 2-ft. 6-in. deep...20 - 3-ft. o-in. deep...22/6 each. Weight 5c 2q each

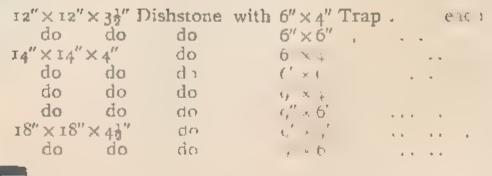
1º/.

DUCKETTS' Traps, Gulleys, &c.

GULLEYS with Patent Hinged Grates.

34 INCH SCALE.





— No. 3a. —



No. 18. P TRAP WITH GRATING COMPLETE.



These can be supplied 2-ins deeper than shewn at...... each extra.

(+ 4' ... each

. each

Ducketts' No. 3a Gulleys have great advantages over those generally used.

THE PROJECTING RIM on underside of Dishstone, together with the socketted top of Gulley, prevent slopwater from draining into the surrounding soil or adjoining foundations.

THE GRATES are hinged to prevent removal by mischievous persons. The ordinary Grate is subject to this disarrangement, which is a source of annoyance to both landlord and tenant.

No 4.

 $6'' \times 4''$ SHALLOW.

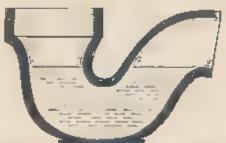
... each

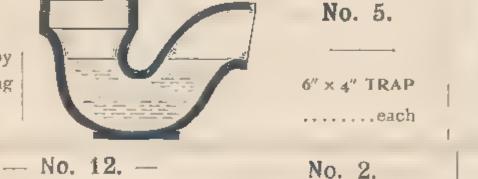
YARD TRAPS.

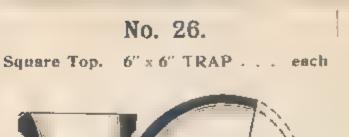


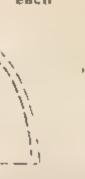
TRAP.

These are preferred by some Surveyors, being more self-cleansing















Syphon Trap each.

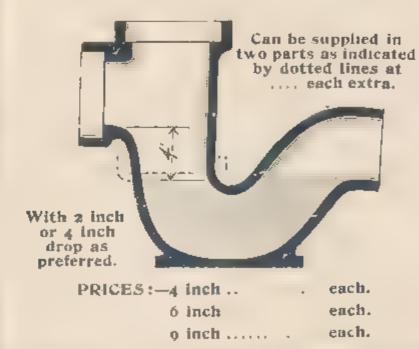
No. 11.

Syphon 4" Trap. ...each.

WARE No. 27. — GRATE 6" x 4" GULLEY . each. With Clay Grate Hinged Grate extra.

Disconnecting Trap.

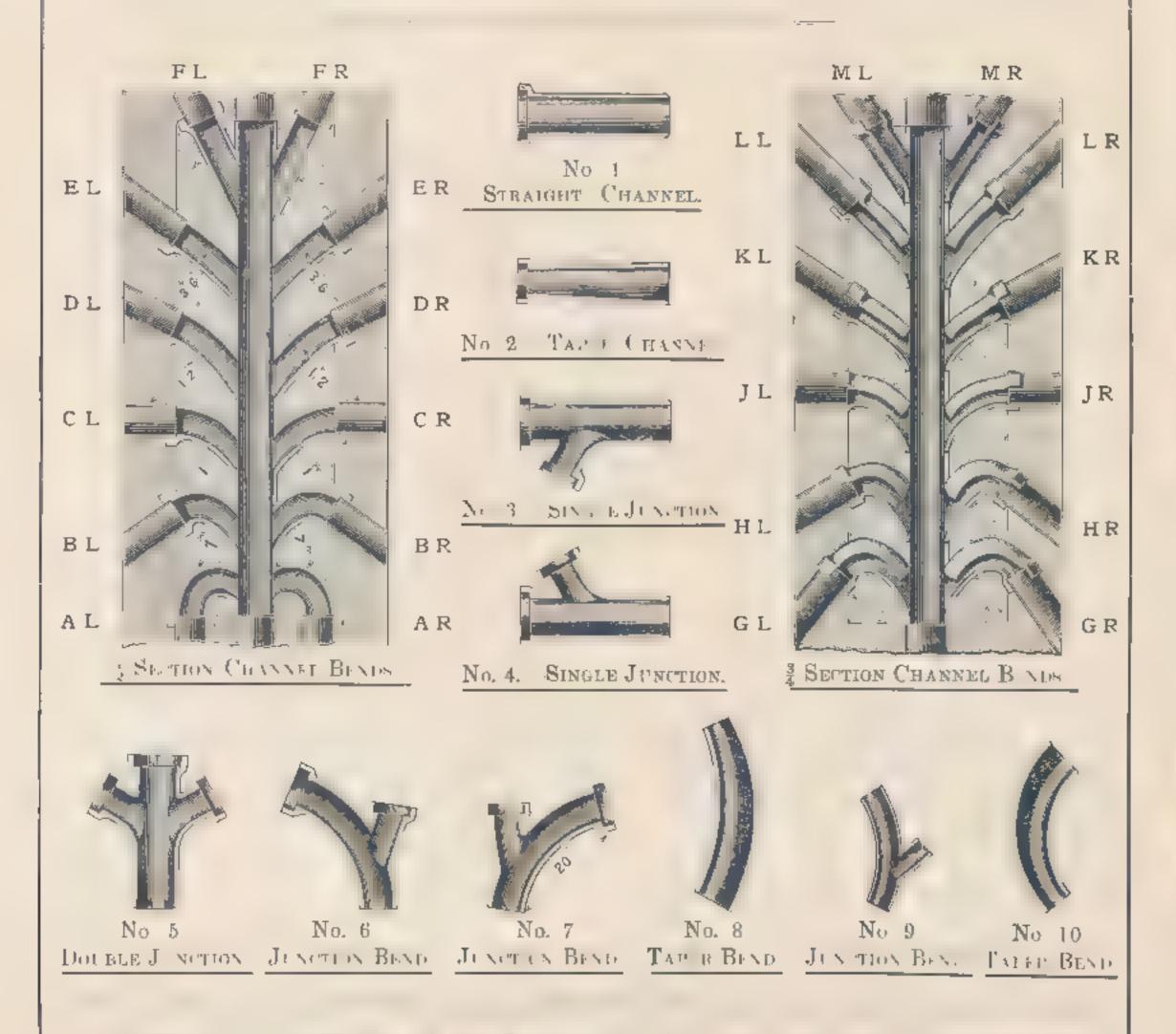
- No. 28. -



NOTE. The above Traps can be supplied with Inlets at the back or sides as indicated by dotted lines at each extra S, P, or Q Traps supplied as required

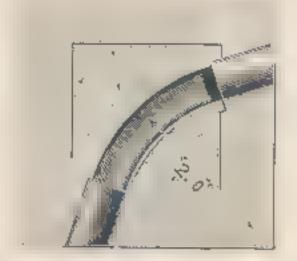
- DUCKETTS

THESE CHANNELS are made in White and Cane Glazed Ware, and of the best workmanship. The Glaze is thoroughly incorporated with the ware and is not liable to shell as it is fired to a very high temperature.



Enamelled Channelling.

 \mathbf{O}



MAIN CHANNEL BIND

Ρ



MAN CHANNE BEN

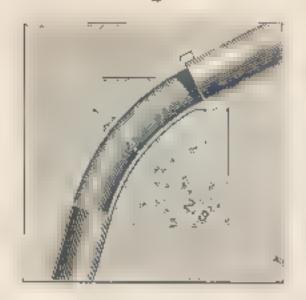
R



MADN CEANNEL BENT

5 10

3 6



MAIN CHANNEL BEND

MAIN CHANNEL BEND

Nos. 8 & 10 - Taper Bend & Section.

PRICES, on Rails at Burnley:

	W	HIT	a E	1431	· ŀ	I	('ANE	E	1.M	F-1
	1	r	G	ın		r	- 1	m	b	173	q_{-i}
Section Channel Bends A to Feach,	3	3	5	,			2	ţ.	2	9	
Section Channel Bends G to M .	3	6)	3			.1	3	3	t	
Section Main Channel: Benda O,P,R,S,T, each;	3	4	5	0			3	0	4	6	1115333
Section Main Channel Bends O,P,R S,T, each	÷)	J	())	6	,	-	
No. IStraight Channels per foot	0	0	‡	2	1 1	0	0	7	0	9	1 4
Nos. 3 and 4 — Single	2	9	5	0	7	3	2	3	3	10	5 9
No. 5. Double Junc-) tionseachj	3	10	6	8	9	6	1 3	4	5	6	8 0
Nes. 6 7, & 3 Jane tior Bends each	5	G	8	3	4441		5	0	7	6	
	= 6 n	to	4 in	9 in.	to 6	in,	6 it	L to 4	tin.	9 in.	to 6 in.
No. 2.—Taner Channel								1 3			
Nos. 8 & 10. Taper		3	3	Ş	G			3 0)	5	3



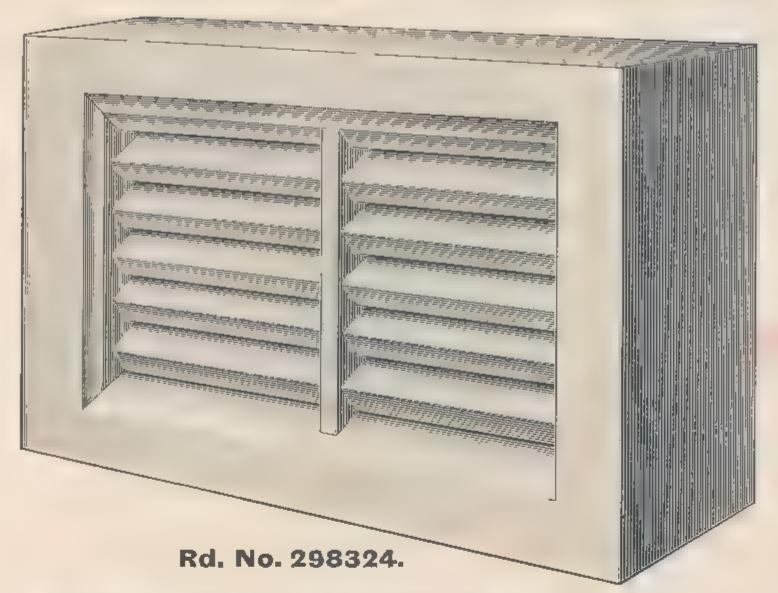
DUCKETTS' No. 3a GULLEYS with Patent Hinged Grates, have Great Advantages over those generally used

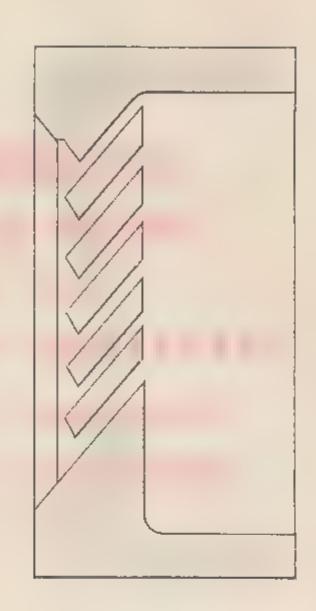
The Projecting Rim on underside of dishstone, together with the socketted top of Gulley, prevent slopwater from draining into the foundations of the building.

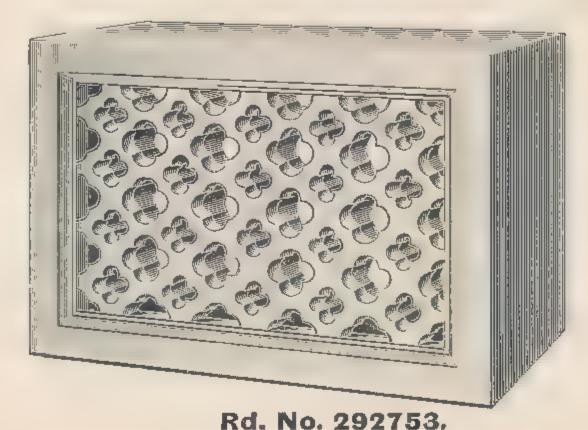
The Grates are hinged to prevent removal by mischievous persons. The ordinary Grate is subject to this disarrangement, which is a source of annoyance to both landlord and tenant.

Ducketts' Air Bricks.

- REGISTERED DESIGNS. -





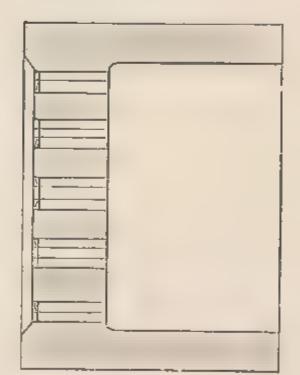


— Prices.

LOUVRE PATTERN.

$12'' \times 9\frac{1}{2}'' \times 4\frac{1}{2}'' \dots 1s.$	3d. each
$9'' \times 9\frac{1}{2}'' \times 4\frac{1}{2}'' \dots$	9d. "
$9'' \times 6\frac{1}{4}'' \times 4\frac{1}{2}'' \dots$	6d. ,,
$9'' \times 3\frac{1}{8}'' \times 4\frac{1}{2}'' \dots$	3d. "
QUATREFOIL PATT	ERN.





- Description. —

These Ventilating or Air Bricks are made of Salt-Glazed Ware; also of Red or Buff Unglazed Ware. They are well pressed and finished, and handsome in appearance.

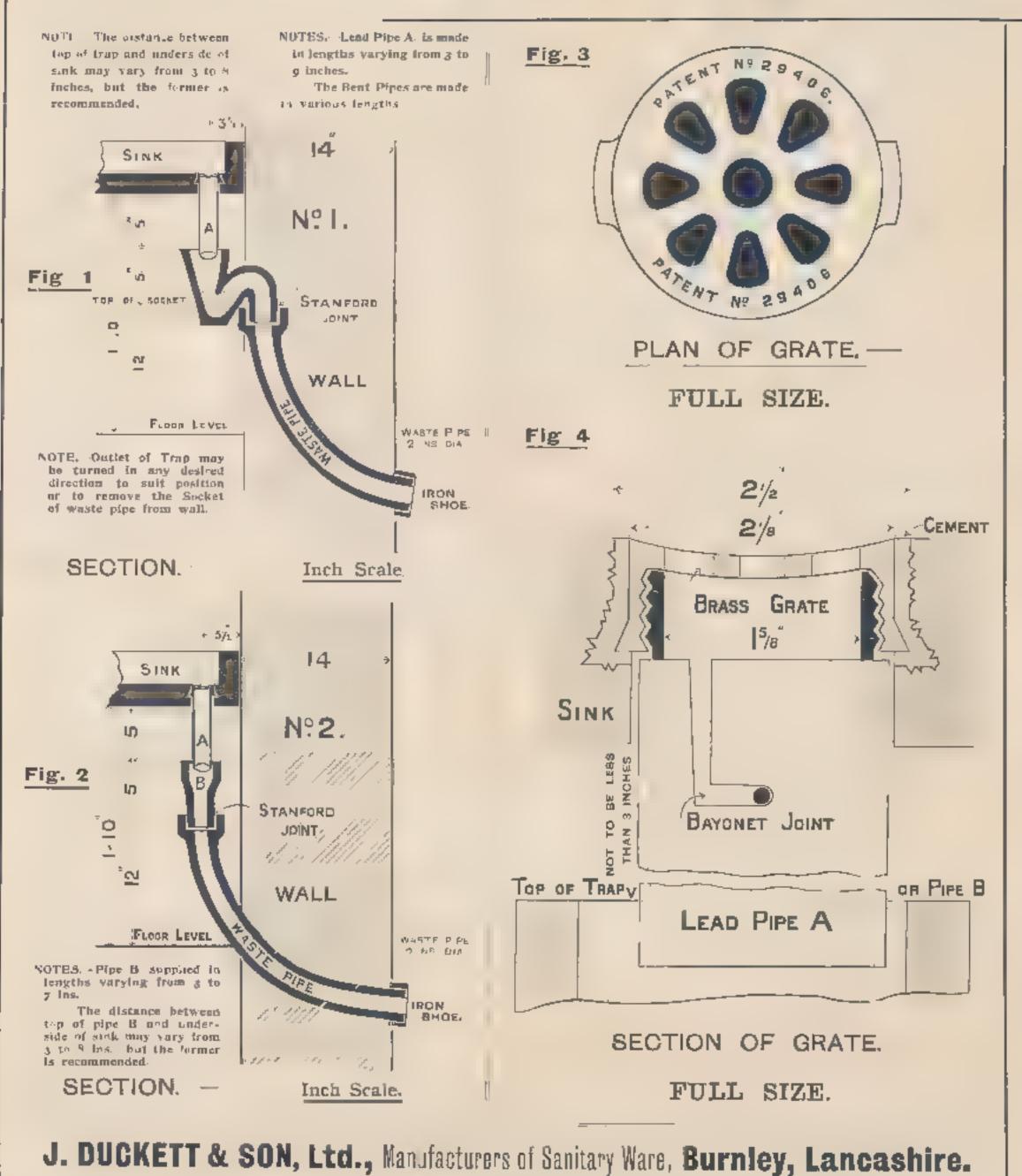
They are more substantial and satisfactory than iron ventilators, and do not require painting.

The Bricks may be placed end to end or side by side when a large amount of air-space is required.

LOUVRE PATTERN. These are designed and constructed to prevent rain passing through or into the walls. This form of Ventilator is very efficient.

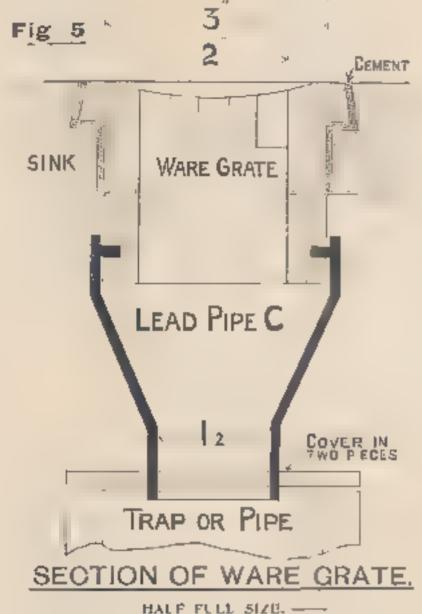
DUCKETTS' PATENT

-CHEAP-CLEANLY



SINK FITTINGS.

SANITARY,



- Description. -

The waste pipes are a loches internal diameter and made of high y-glazed enamelled ware, with air-tight "Stanford" joint to trap and pipe B, which are also of enamelled with

The outlet end of waste pipe is hooped with east iron, for protection against breakage.

A brass or ware grate is firmly lewised into sink.

Pipe A is made in two parts, the upper is of brass and soldered to the grating, and is made to the escope into the bottom pipe, as shewn on Fig. 4. A grating in glazed ware with lead pipe C, as shewn on Fig. 5, is supplied instead of brass grate and pipe A, if preferred, and at the same pince.

- Advantages.

The Trap and waste p.pe, being of glazed ename.led ware, are more durable than lead.

A fast grate, yet ready access to waste pipes for cleaning Outlet end of waste pipe protected.

waste pipes may be safely placed in position when wail is being built

NOTE. When cleaning No 1 remove pipe A and trap, then pass cleaning No. 2 remove pipe A only

The viste pipe should be secured to the wall, but the trap left free, as it will be supported by the special socket, &c

If an ordinary dishstone is used, the bottom of iron hoop at end of waste pipe should be set a" above yard level, and 'f Ducketts' No. 2 Channe. Gulley is used, fix bottom of hoop a" below yard evel

The hoop can be removed and waste pipes readily out shorter if required

IN ORDERING, state the fer for go a form on section in R. I.A. Let No are required, a so the spession was and depth a coorstep. It is as a section of state whether an interest despect of Dick its No. 2 Patent Gulley will be used, and whether the trap will be fixed square, as shown, or twisted so as to bring the socket master particle in the way of hose or consistency or things and research the operation. Also state whether brass grate fittings or ware grate fittings are required.

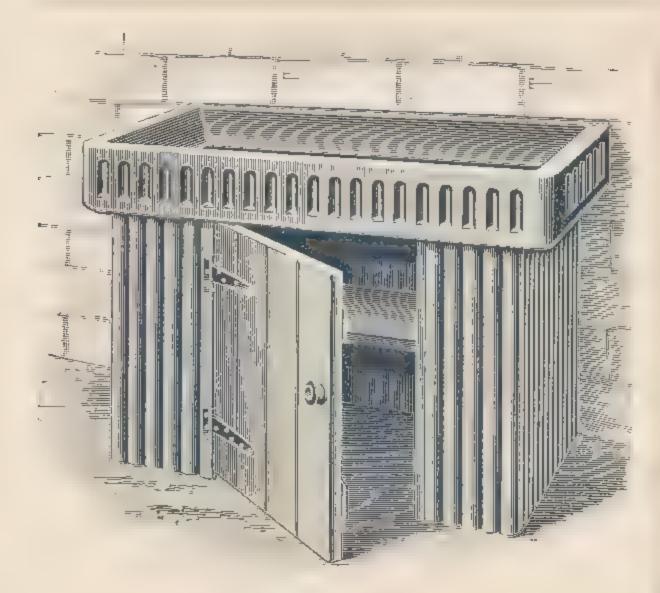
PRICES, on Rails at Burnley:

NOTE. A sample set of Sink Fittings will be forwarded free to any address on receipt of cash Ducketts' Patent No. 2 Enamelied Channel Guiley may be used in conjunction with these hittings, price 7 - each on rais.

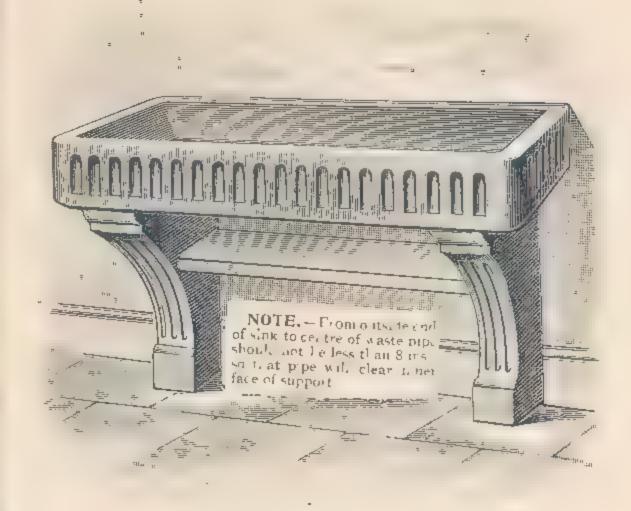
J Duckett & Son., Ltd., supply Enameled and Salt-Glazed Sinks, which are recommended as more sant by thou stone sinks. Illustrated brice List will be sent on applied on

PATENT SINK SUPPORTS

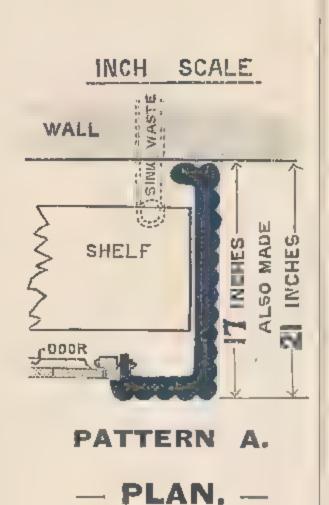
NEAT, CLEANLY, AND SANITARY. -



PATTERN A.



PATTERN B.



Description. —

THESE SUPPORTS are intended to be used instead of ordinary brick piers, and being made of highly-glazed ware, present a pleasing appearance. In pattern A, they are provided with rebated wood studs 2-in. x 1½-in. bolted firmly to the supports for hanging a door thereto. In pattern B, a preparation is formed in each pillar to receive a 9-in. shelf, and a cast iron dowel is supplied fixed to each pillar for securing it to the wall.

Stock sizes are:—Pattern A. No. 1—17-in. × 5½-in. and 22-in high, and No. 2, 21-in. × 7-in. and 22-in. high, but either can be supplied higher if desired. Pattern B. No. 1 17-in. × 4-in. and 24-in. high, and No. 2 14-in. × 4-in. and 24-in. high.

PRICES on Rails at Burnley for Salt-Glazed Ware:-

	(No. 1 -17-in. × 51/2-in. and 22-in. high, includ-	***	d.	Pairs to a Ton,
	ing rebated wood studs per pair	3	0	About 20
Pattern A.	No. 2 -21-in. x 7-in and 22-in high, including			
	rebated wood studs do.	3	6	About 17
	For each additional 2-in. in height do.	0	6	
Pattern B.	No 1 —17-in. × 4-in. and 24-in. high do.	4	О	About 26
i deceriii Di	(No. 2-14-in. x 4-in. and 24-in. high do.	5	0	About 31
	Extra if in Amber Enamelled Ware, 20°/, on above prices	s.		

- J. Duckett & Son, Ltd., supply Enamelled and Salt-Glazed Sinks. Illustrated Price List will be sent on application.
- J. DUCKETT & SON, Ltd., Manufacturers of Sanitary Ware, Burnley, Lancashire.

DUCKETTS

PAUDONU

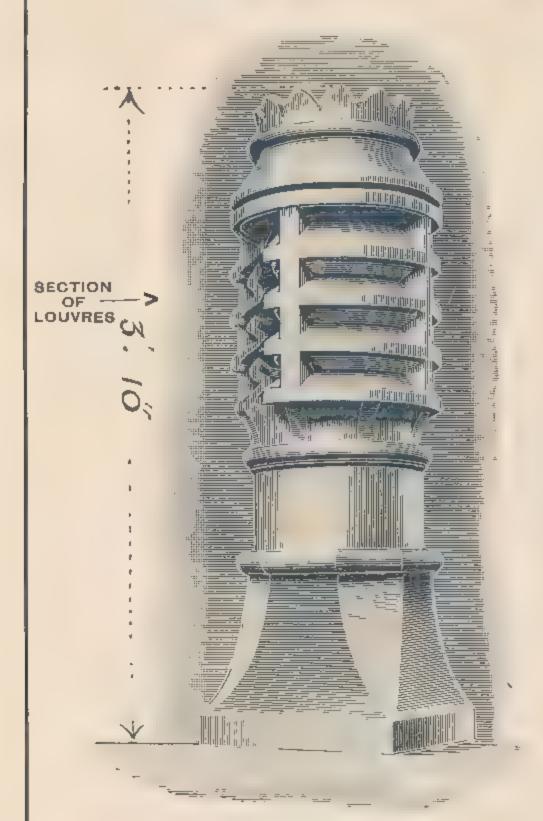
Gure for Smoky Chimneys.

JOYKO,

NEAT IN DESIGN.

VERY EFFECTIVE.





--- Description. ---

This pot has a special louvred body circular in plan, with internal diameters of 13" at the widest part and 7" at the narrowest part of the smoke flue. The base is 15" square (outside measurement). The height is 3' 10," and the weight 120 lbs. It has been designed to protect downdraughts and consequent smoky chimneys, and the special louvres are so constructed that rain in wet weather cannot penetrate to the smoke flue.

— Advantages.

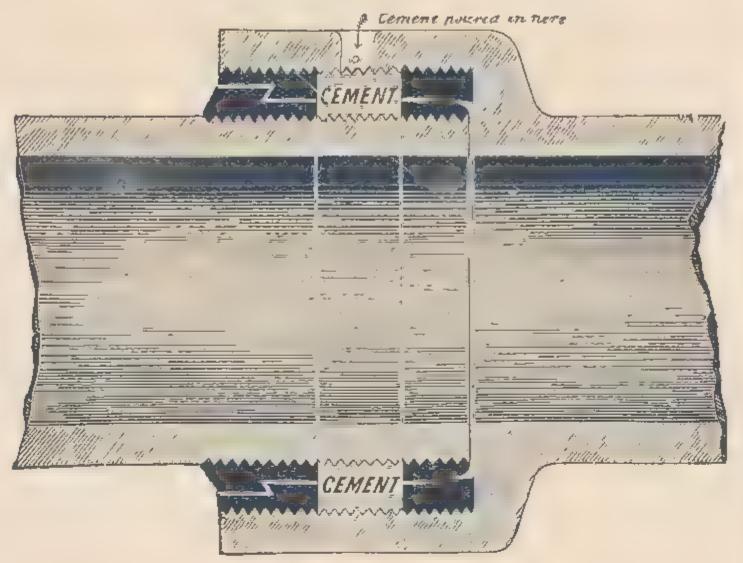
It is of superior principle and construction. It has no movable parts, is noiseless, allows of easy sweeping, is not liable to get out of order, and is handsome in appearance.

It has novel louvres so arranged as to deflect the wind and at the same time prevent the rain penetrating to the smoke flue, which would otherwise destroy the efficiency of the upward draught.

Price: - - 18s. od. each.

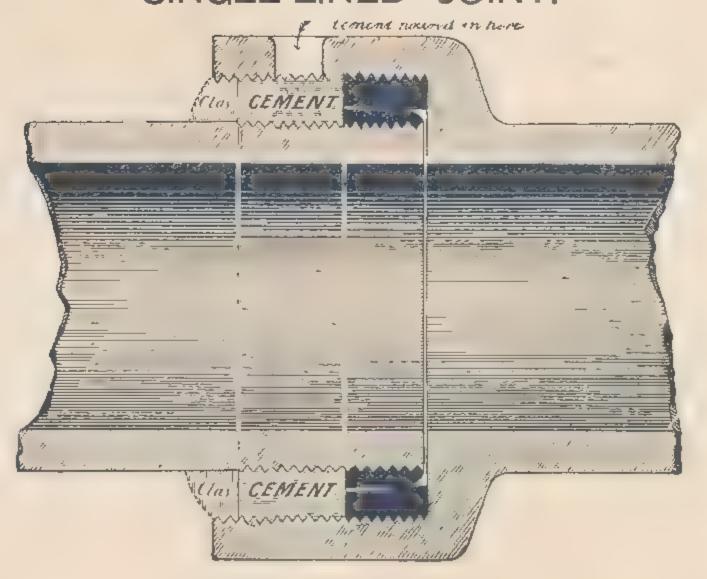
— HASSALL'S — Improved Patent Safety Pipe Joint

DOUBLE-LINED JOINT.



SECTION.

SINGLE-LINED JOINT.



SECTION.

· WAKO.

This well-known Patent Joint has been specially designed for the purpose of enabling thoroughly water-tight sewers to be constructed.

It is made in two forms as shewn, viz.:—Double-lined and Single Joint.

The great advantages possessed by this Joint are so well known as to require no description here.

The Joint has been very largely used, and references can be given to eminent Sanitary Engineers who have used it.

Further particulars and prices may be had on application to

J. Duckett & Son, Ltd.,

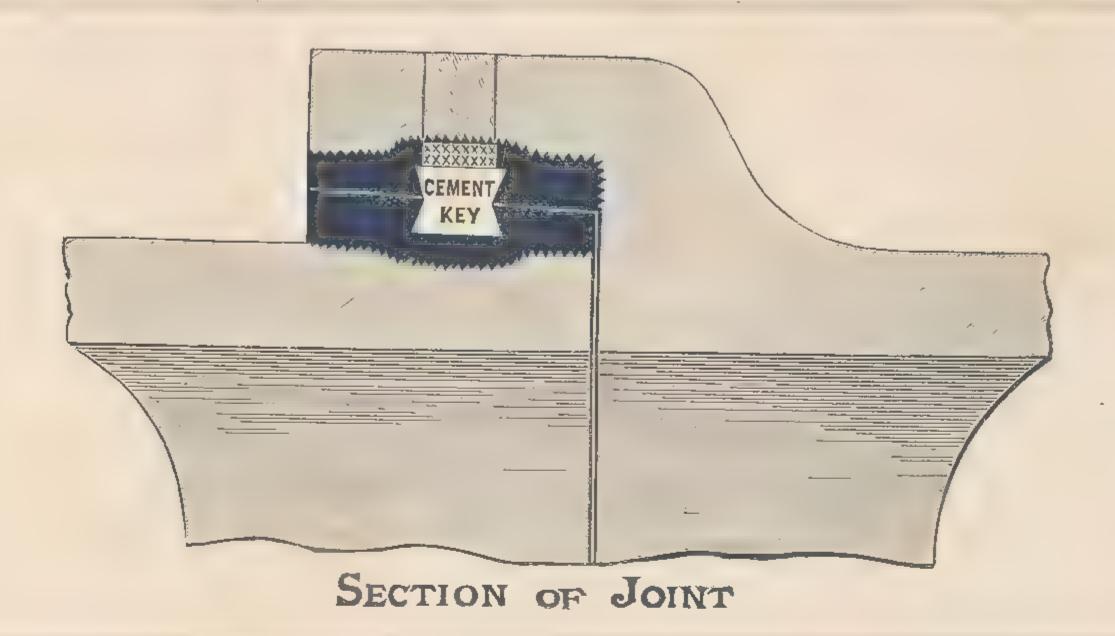
BURNLEY,
LANCASHIRE,

Licensees and Manufacturers.

OXKO.

Button's Patent "Secure" Joint

FOR SEWER PIPES.



— Description. —

This Patent Joint is admirably adapted for Sewers where watertight conditions and strength are of importance.

On the spigots and in the sockets of the pipes a bituminous material is cast by means of improved and patented apparatus. In these cast rings grooves are formed as shewn on drawing, so that when the spigot of the pipe is placed in the socket an annular groove is obtained into which cement is run, so as to seal the joint.

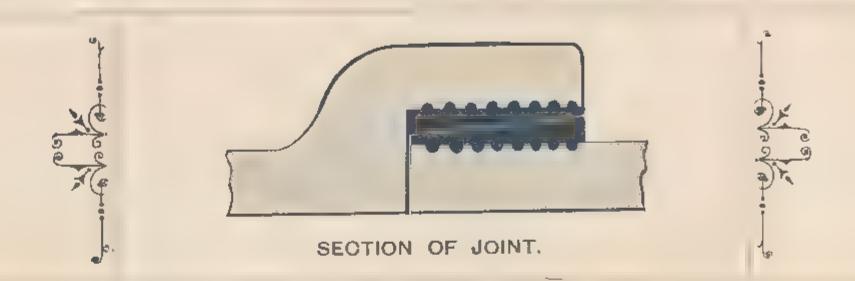
The cast rings have true bevelled surfaces which allow of easy fixing, and when the groove has been filled with coment a perfect key is made, which renders the joint not only strong, but absolutely watertight.

— Advantages. —

- 1st. A RELIABLE and SECURE Watertight Joint is obtained,
- 2nd.—There is no possibility of the spigot drawing from the socket, as is sometimes the case with ordinary bituminous ioints.
- 3rd. -The CONTINUOUS RINGS of bituminous material in socket and on spigot in combination with the ANNULAR KEY of cement ensure a watertight joint being made.
- 4th.—Pipes provided with the "Secure" Joint can be laid, and the joints properly made in sewer trenches when there is a continual stream of water running through.
- 5th. The "Secure" Joint being prepared by specially made and patented apparatus, a TRUE ALIGNMENT of pipes when laid in position is ensured.

PRICES ON APPLICATION TO

DUCKETTS'= "Stanford" Jointed Pipes.



— DESCRIPTION. —

With these Pipes a water-tight joint is obtained by casting upon the spigot and in the socket of each pipe a durable material, by which the pipes when put together fit with mechanical accuracy and require no further jointing material.

The "Stanford" joint is acknowledged by Engineers and others to be one of the best joints for sewer pipes.

In laying these pipes, it is only necessary to insert the spigot of one pipe firmly into the socket of another previously laid, and the joint is complete. It is suggested that before laying, the jointing material should be wiped with a greasy cloth.

- ADVANTAGES. -

No skilled labour required in laying.

No cement or other jointing material needed, therefore nothing to wash out.

The Pipes can at any time be taken up and re-laid without injury to the joint-ing material.

If desired, the joints can be readily tested by water before the pipes are permanently laid.

The joints are so made that it is impossible for the jointing material to project beyond the inside of the pipe.

--- PRICES ON APPLICATION. ---



No. 1.

DUCKETTS' VASES, &c.



No. 2.

In Amber-Enamelled or Unglazed Ware, &c.

-PRICES at Works, Complete.-



No. 3.

In Amber Ware. Unglazed Ware.

£ s. d. £ s. d.

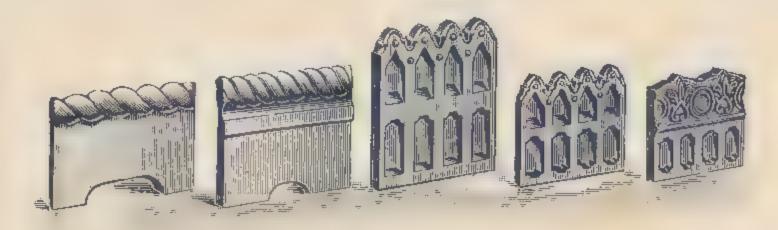
Vase & Pedestal No. 1...2 5 0 1 15 0

Do. No. 2... 17 6 12 6

Vase No. 3...... 10 6 7 6

Note.—If Vases only are required, prices are two-thirds of Nos. 1 and 2.

Garden Margin Tiles.



No. 1.

No. 5.

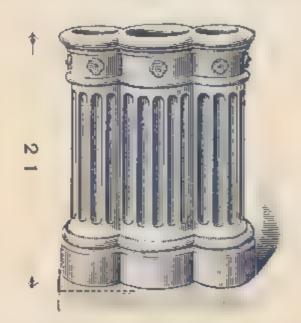
No. 6.

No. 3.

No. 7.

PRICES at Works, in Salt-Glazed Ware.—
Patterns No. 1, 5, 3 and 7—8d. per yard Pattern No. 6 -10d. per yard.

Umbrella Stand.



-PRICES at Works.-

Unglazed, 12 6 cach.

In Amber Ware, 176 each.

Grave Margins.



REGISTERED DESIGN No. 366,384.

6-11-00

These Margins are supplied in Amber-Enamelled Ware only.

 $\frac{n-n-1}{n-1}\Big[+ i \Big[\frac{n-n}{n-1} \Big] +$

-- PRICES at Works, per Set.-

 $= \frac{1}{1-\alpha} \left[\left(\frac{1}{2} + \frac{1}{2} \right) \frac{1}{2\alpha - 2\alpha} \right] = \frac{1}{2\alpha - 2\alpha} \left[\frac{1}{2\alpha - 2\alpha} + \frac{1}{2\alpha} \right]$

Cheaper Designs can be supplied, if required.

Particulars on application.

0000

J. DUCKETT & SON, Ltd., Manufacturers of Sanitary Ware, BURNLEY, Lancashire.

.0 .045

STREET OSBYGII

PRICES at Works, Complete.

· / / / / /

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0 511 0 5 2 1 7 2 5 0 1 15 0

. 17 8 12 1.

3 7 8 01

Steel of any transfer of I have I to the first of the control

No. 2. No. 3.

PRICES at Works.

... 128

ave Margins.

10 N/121 67 8d. . 111- / 6 10d.

These Lagins are supplied in Amber-Finamel.ed Ware only

1, 1

- PRICES at Works, per Set.

cheaper Designs can be supplied, if required.

- 1 -

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SANITARY INSTITUTE OF GREAT BRITAIN.

Southampton Exhibition, 1899.

THE JUDGES AT THE ABOVE EXHIBITION AWARDED TO US

4 BRONZE MEDALS

FOR THE FOLLOWING PATENTED SANITARY SPECIALITIES:

- 1. "The Rapid" Slop-Water Closet.
- 2. "The Clencher" Pedestal Wash-Down Closet.
- 3. Isolated Closets in Ranges.
- 4. Automatic Flushing Tank.

Full particulars of these Specialities sent on application.

J. DUCKETT & SON, Ltd.,

SANITARY WARE WORKS,

BURNLEY, Lancashire.

A CONTRACTOR OF THE SANCES .

DUCKETITS'

SELF-CLEANSING

PATENTED.

deep Channel and prevents splashing,
even when sink waste is 3 inches
diameter, or even when sink is at a
considerable height above Gulley.

This Gulley has a long narrow

It will be observed from diagram that a cover is formed over part of the Channel which acts as a shield. Underneath it a depression about ¾ inch deep is formed in the Channel to act as a cushion

An opening in the cover is provided to enable a workman to make a good connection and admit of ventilation to foot of waste-pipe. may be used when ameter, or when sink is not elevated as above mentioned DUCKETTS' "1893" PATENT CHANNEL GULLEY waste does not exched 11/2 inches di Prices are alike. "1893" or "1899" pattern is required. In ordering state whether

Manufacturers of Sanitary Ware, BURNLEY, LANCASHIRE & SON,

0 -3 630 100 mm Channel to act as a cuspion, The second and (PATENTED.) 366 31 121.42 to SU connection 10 benot an acadass of the Channel which b 120 tons sd N rice! brida, 121 he -ud Road 7 VQ 7 だがって. 5.64 621 المنا perions. 20 1. The exam A IS THE BARRYOT OAGE DULL ₹ 1000 20 *** BENDARLY. p. · Darwin,+ 3.7 5. Gb 18 ある 4点 D 12. · DAR. 1000 THE WE r i Lat 13 コダング forms THUTHER. いたまする The cheminal in the co. 11.133 5 It will be of earth 1 2030 S Harry Williams Bull P ù, Wind Stor 5975 The Action of the state of the 200 15. TO KONDO bre igneed and IR 65.006/ This Carlier Anie sink 1 cied. Salield. 5 2

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2 GALLS 2 GALLS 3 GALLS 22s. 0d. 23s. 6d. 25s. 0d.





DUGKETTS' Patent Rain-Water Gulley.

NO MORE WET FOUNDATIONS.

In consequence of the serious defects in the old-fashioned rain-water gulleys, J. D. & S. Ltd. have invented this gulley which is free from objectionable features. It is made of well glazed stoneware and of such form as to give best results.

Note. Sufficient play provided to illow bottom length of rain-water pipe being easily socketted into length above.



- Prevents Splashing.
- Foundations kept Dry.
- 3. Small Water Area and Direct Flush, therefore Self-Cleansing.
- 4. No Shoe required.
- 5. No Bend required.
 - 6. Suitable either for square or round pipes.
 - 7. Outlet will turn in any direction.

Stock Sizes of openings for Down-Pipes:

No. 1.—Rectangular.—3ins. x 2ins., 4ins. x 3ins., and 5ins. x $3\frac{1}{2}$ ins.

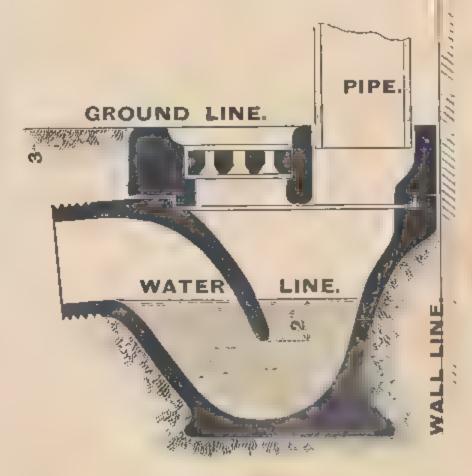
No. 2.—Circular.—2\fins., 3ins., and 4ins. diameter. Other sizes to order.

Prices, on Rails at Burnley:

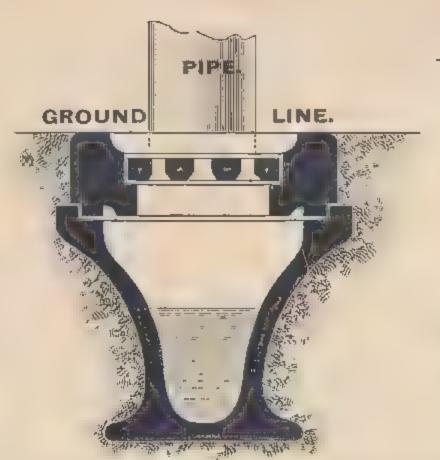
Complete Gulley, with ware grate inch thick 5 0 each. Extra if fitted with Ducketts' Patent Hinged Iron Grate 1 0

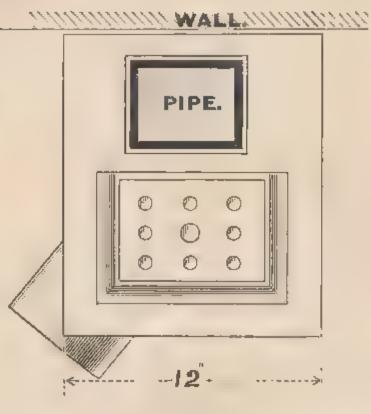
" Galvanized Grate 2

TRADE TERMS ON APPLICATION.

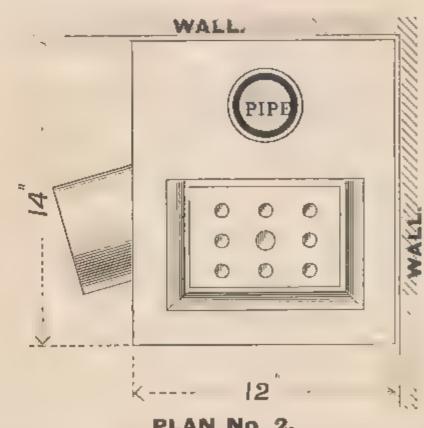


SECTIONS.



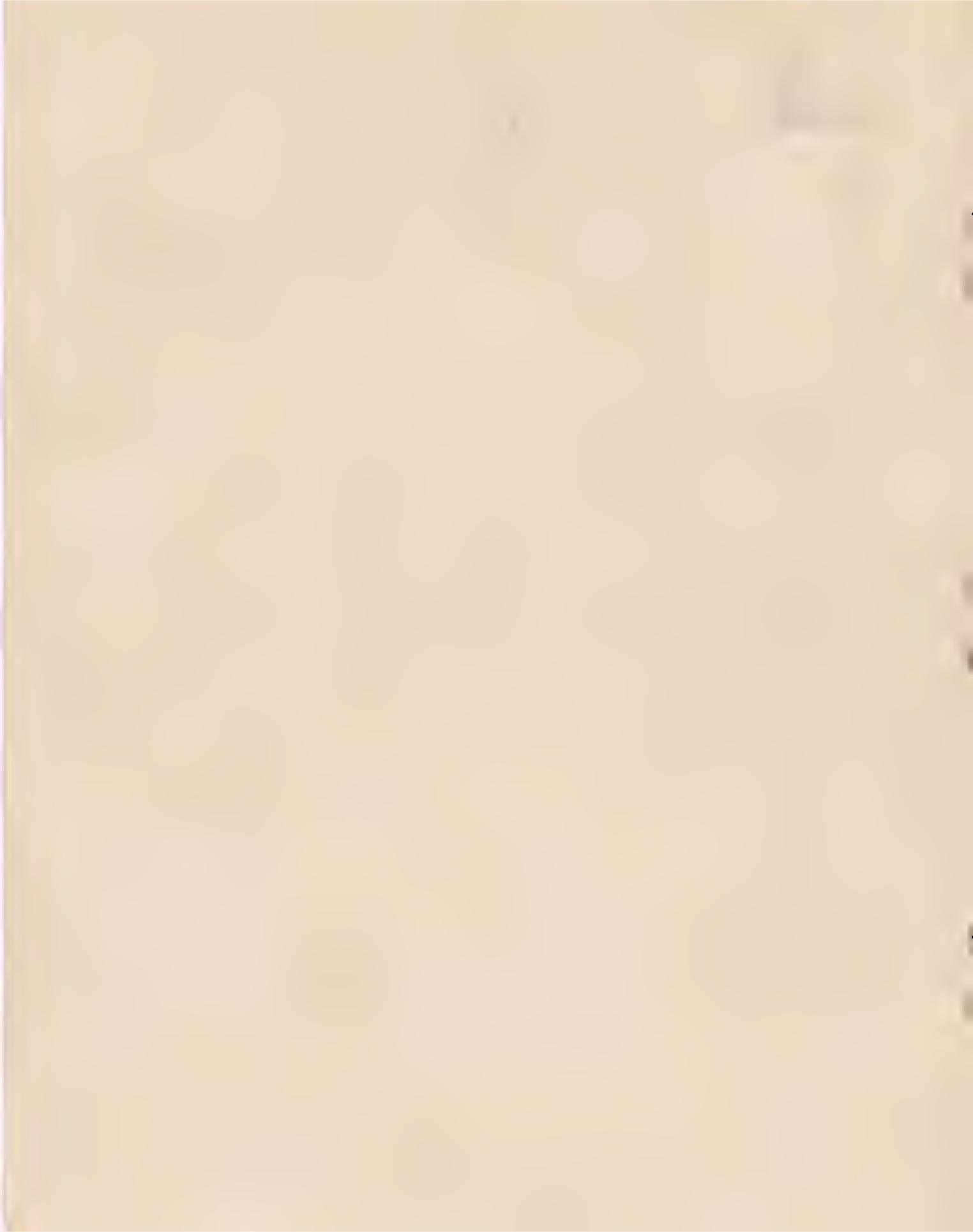


PLAN No. 1.



PLAN No. 2.

J. DUCKETT & SON, LTD., Manufacturers of Sanitary Ware, BURNLEY, Lancashire.



DUCKETTS' SANITARY SPECIALITIES



Registered Design No. 357023.

Disconnecting Trap with Rests for Spirit Level

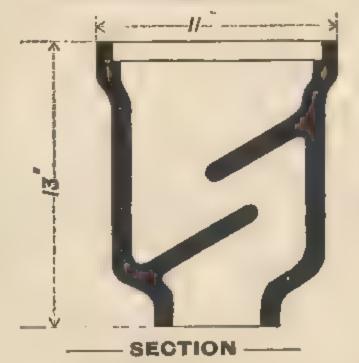
This Trap has been designed with a view to increased efficiency and simplicity in the disconnection of house drains. The drop allowed between inlet and outlet is 2 inches. Rests for spirit level are formed on the outside of the Trap as shewn, whereby a workman can easily so fix the Trap as to ensure the proper fall and seal. The hand-hole is fitted with an airtight stopper when required.

ADVANTAGES.

- 1.—Proper Fall and Seal ensured.
 2.—Easily tested when fixed.
- 3.—A safe Disconnector.

PRICES on Rails at Burnley.

4 inch Trap, as	illustrated	6/-	each.
6 inch do.	do	8/6	do.
Airtight Access	Lid	6d.	do.





Shaft Top for Drains.

Registered Design No. 344065.

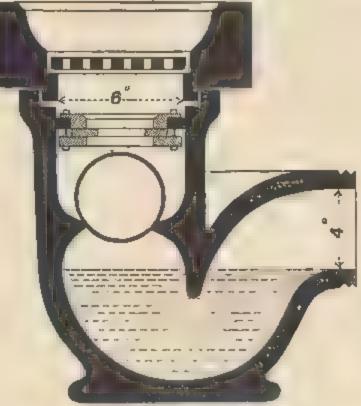
This appliance is made in salt-glazed ware, with strong diaphragms as shewn, and provided with iron grating, fitted with locking arrangement to prevent easy removal by mischievous persons or children. It is admirably adapted for a surface finish to drain shaft, and provides excellent means for an air inlet to the drain without the drawbacks common to other arrangements.

ADVANTAGES -

- 1.—Grit and rubbish passed through grate cannot fall into drain.
- 2.—A good inlet for ventilation of house drain.

PRICES on Rails at Burnley.

Shaft Top and	Iron Grate	9 6	each.
Extra if Grate	is galvanised	1/-	do.

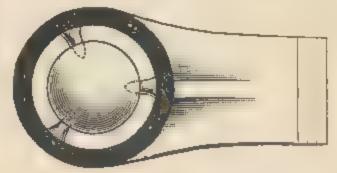


SECTION.

Anti=Flooding Trap

Registered Design No. 367217.

This Trap, as its name implies, is efficient for preventing flooding of basements, etc., by back pressure from drains. When water backs up from drain, the india-rubber ball rises and comes in contact with a well-secured india-rubber ring, whereby a watertight joint is made.



PLAN OF TRAP.

PRICES on Rails at Burnley.

	eac	each.	
6" × 4" Trap, with India-rubber Ball and	i 40-	6.0	
India-rubber Joint	. 108.	va.	
Extra for 12" × 12" Dish and Hinged Iron	1		
Grate	4	6d.	
Extra if Grate is Galvanised	*	9d.	

J. DUCKETT & SON, Ltd., Manufacturers of Sanitary Ware, BURNLEY, Lancashire.

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ADVANTAGES.

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PRICES on Rolls at Burnley.

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ADVANTAGES

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 - 2. A go of most for vert, ation of house each.

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PRICES on Ralls at Burnley.

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Registered Dowien No. Snizii

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PRICES on Rolls at Burnley.

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3

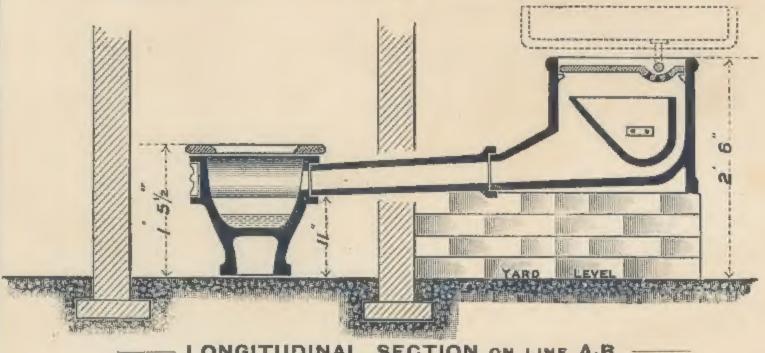
PLAN OF TKAP.

J. DUCKETT & SON, Lti., Manufacturers of Sanitary Wore, BURNLEY, Lancashire.

DUCKETTS'PATENT"CLIMAX"

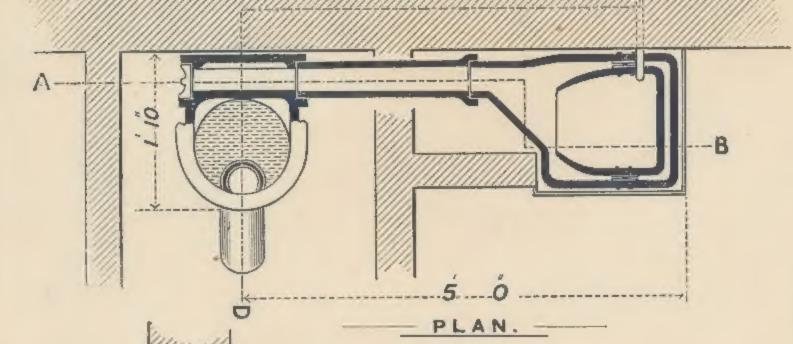
SLOP-WATER CLOSET.

SANITARY. EFFICIENT. ECONOMICAL. ACCESSIBLE.



LONGITUDINAL SECTION ON LINE A.B.

- SCALE ---2 FEET TO AN INCH.



5/2 SCULLERY FLOOR LINE

CROSS SECTION ON LINE C.D.

THIS up-to-date Slop-Water Closet consists of a strong Pedestal Basin and Automatic Flushing Apparatus.

The Automatic Tipper is of 3 gallons capacity, fitted with latest improvements, in a strong container covered with an iron dished grate to receive discharge from sink waste pipe. A 3 inch pipe connects the outlet from flushing apparatus with inlet to pedestal, as shown on drawing.

The Pedestal is prepared to receive flush from either left or right hand, and has a standing water area of 110 square inches.

The Flushing Inlet and Conduit are specially formed to give the best results. A stopper is provided to block up end not required.

The Outlet of closet is at the front 4 inches diameter, with a 4 inch trap which can be turned in any direction to meet drain.

Advantages:

- 1.—Exceptionally strong flush.
- 2.— No fouling surface without flush.
- 3.—All parts accessible.
- 4.-No deep drains required.
- 5.—Easily fixed.
- 6.-No plumber's work required.
- 7.—Cheap and durable.

INSTRUCTIONS FOR FIXING.—The various parts should be set up loosely before being permanently fixed, so as to ensure proper fall between sink waste and closet.

The connecting pipe between flushing apparatus and pedestal may be fixed level if step between scullery floor and yard is less than 7 inches.

All joints must be made water-tight with cement.

PRICES on rails at Burnley:-£ s. d. Closet, including Pedestal Basin, Stopper, Trap, Automatic Tipper) and Container in Salt-glazed Ware, with Iron perforated Cover 1 16 0 for Container Strong plain hinged seat (If seat is painted and varnished..... 0

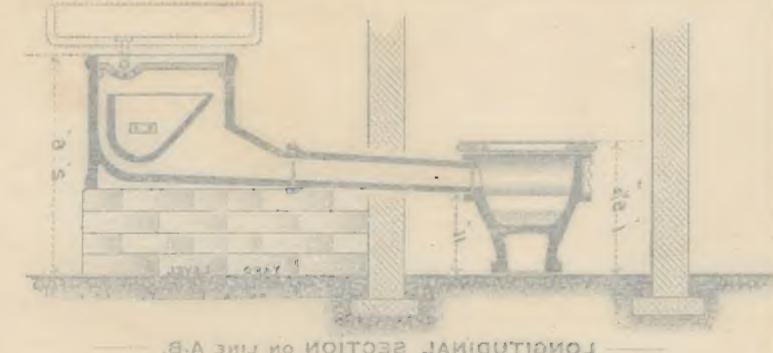
IN ORDERING state whether flushing apparatus will be on left hand as shewn or on opposite hand.

J. DUCKETT & SON, LTP MANUFACTURERS OF SANITARY WARE, BURNLEY.

DUCKETTS PATENT "CLIMAX"

SLOP-WATER CLOSET.

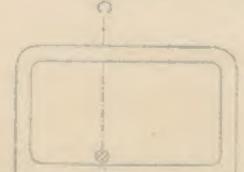
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8 PLAN

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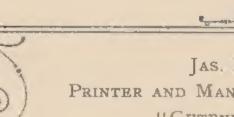
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Closet, including Pedestal Basin, Stopper, Trap, Automatic Tipper) and Constituer in Salt-glazed Ware, with Iron perforated Cover 0 01 1 for Container If seat is painted and varnished..... Strong plain hinged seat If basin is in anifer enamelled ware inside and out...... If basin is amber enamelled outside and white inside

IN ORDERING state whether flushing apparatus will be on left hand as shown

or on opposite hand.

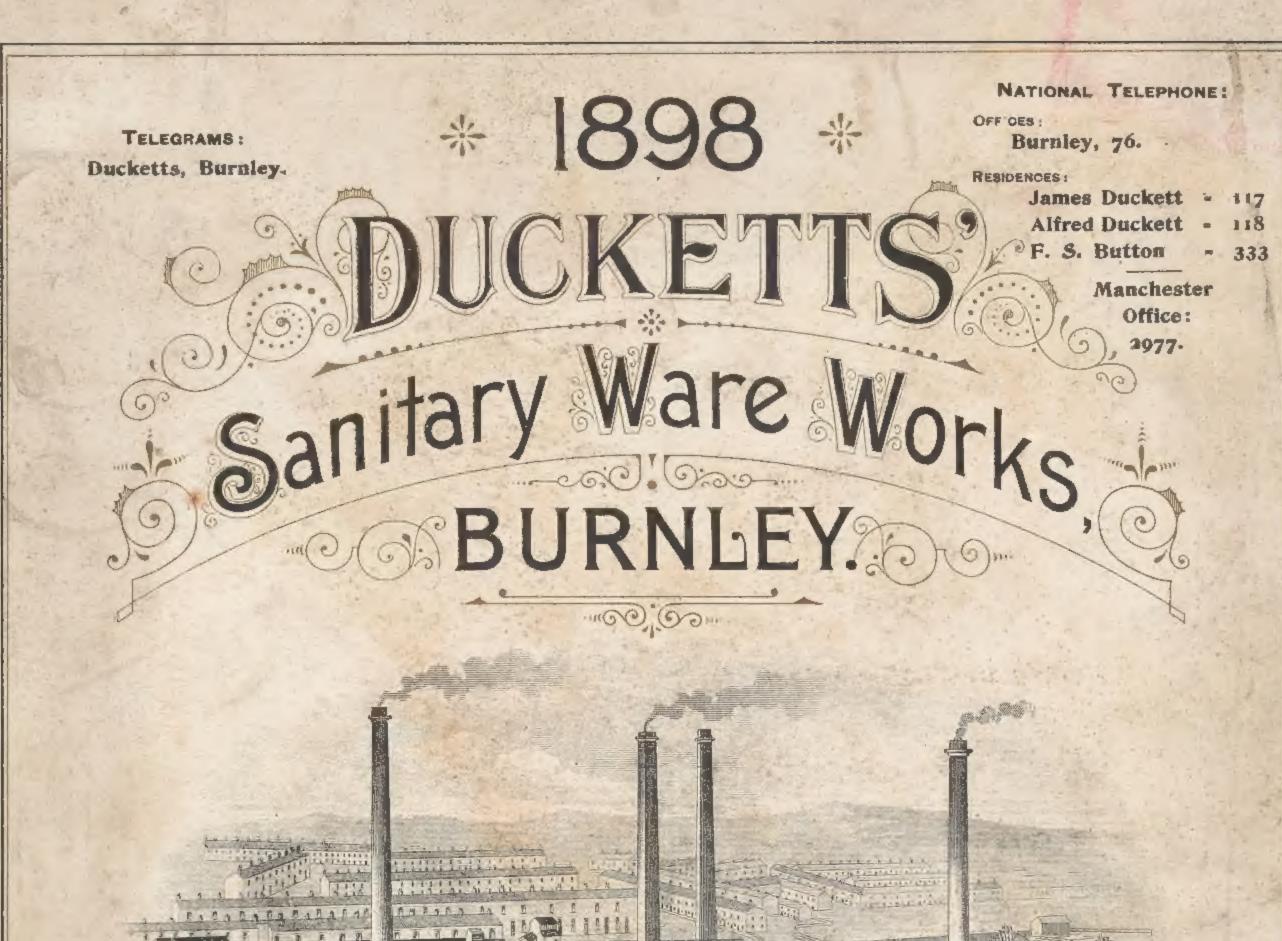
J. DUCKETT & SON, LTP MANUFACTURERS OF SANITARY WARE, BURNLEY.



JAS. BROADLEY, PRINTER AND MANUFACTURING STATIONER, "GUTENBERG" WORKS, CLAYTON-LE-MOORS, ACCRINGTON.









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C L. Ry. Station, Chorlton-c-Hardy.

J DUCKETT & SON, LTP, Sanitary Ware Works,

F. S. BUTTON, M. INST. C.E.

BURNLEY, LANCASHIRE.